

Subfamily Scolytinae Latreille

See also citations of Family Scolytidae.

Scolytinae

References: Balachowsky 1949a: 2; Bedel 1888b: 386, 405; Handlirsch 1925: 690; Hopkins 1915c: 165, 224–225; LeConte & Horn 1883: 512; Leng 1920: 337; Lucas 1920: 57; Numberg 1954: 13–14; Wood, S. L. 1978a: 106, 109, 112, 1982b: 56, 1986a: 57; Yin, Huang, & Li 1984: 18.

Eccoptogasteridae

References: Tredl 1907: 4.

Eccoptogasterinae

References: Hagedorn 1909: 162, 1910a: 24, 120, 1910d: 79; Lucas 1920: 24; Nusslin 1911: 428; Reitter 1906: 707; Tredl 1907: 5.

Eccoptogasterini

References: Spessivtsev 1913a: 28.

Tribe Scolytini Latreille

See also citations of Family Scolytidae and Subfamily Scolytinae.

Scolytini

References: Barbey 1901: 16; Bedel 1888b: 386, 405; Eichhoff 1881a: 33, 39, 1883a: 98, 104; Ferrari 1867a: 3; Handlirsch 1925: 690; Hopkins 1915c: 165, 224–225; LeConte & Horn 1883: 512; Leng 1920: 337; Lovendal 1889: 5–6; Lucas 1920: 57; Wood, S. L. 1972g: 243, 1978a: 112, 1982b: 62, 1986a: 57.

Scolytidae verae

References: Chapuis 1869: 53, 1873: 261.

Scolytides

References: Blandford 1896e: 119.

Camptoceridae (also includes the French Camptocerides)

References: Chapuis 1869: 49, 1873: 257; Ferrari 1867a: 3; Hopkins 1915c: 225; Lacordaire 1866: 357, 366; Leng 1920: 337.

Camptocerinae

References: Hopkins 1915c: 225.

Camptocerini

References: Leng 1920: 337.

Eccoptogasteridae

References: Tredl 1907: 5.

Eccoptogasterini

References: Reitter in Heyden, Reitter, & Weise 1906: 707.

Genus *Cnemonyx* Eichhoff

CNEMONYX EICHHOFF 1868c: 150. Type-species:

Cnemonyx galeritus Eichhoff, monobasic.

Ceratolepis Chapuis 1869: 52. Type-species:

Ceratolepis jucundus Chapuis, monobasic.

Synonymy: Wood 1972c: 140.

References: (tx) Blandford 1896e: 52, 126–127;

Chapuis 1869: 52, 1873: 260; Hagedorn 1910a: 126–127, 1910d: 82; Schedl 1962q: 485; Wood, S. L. 1972c: 140, 1972g: 244.

Loganius Chapuis 1869: 52. Type-species: *Loganius flavicornis* Chapuis, monobasic. Synonymy: Wood 1972c: 140.

References: (tx) Blandford 1896e: 128–131; Chamberlin 1939: 236–237; Chapuis 1869: 52, 1873: 260; Hagedorn 1910a: 127–128, 1910d: 81; Schwarz 1894: 44; Swaine 1909: 126; Thatcher 1950: 89; Wood, S. L. 1967c: 119, 1972c: 140, 1972g: 244.

Minuhus Eggers 1912: 206. Type-species: *Minuhus barbatus* Eggers, monobasic. Synonymy: Eggers 1923: 138.

References: (tx) Eggers 1912: 206, 1923: 138.

Coptodryas Schedl 1948f: 262. Type-species: *Coptodryas hylurgoides* Schedl, monobasic, preoccupied by Hopkins 1915. Synonymy: Wood 1972g: 244.

References: (tx) Schedl 1948f: 262, 1952b: 363; Wood, S. L. 1972g: 244.

Coptosomus Schedl 1952b: 363. Type-species: *Coptodryas hylurgoides* Schedl, automatic. Synonymy: Wood 1972g: 244.

References: (tx) Schedl 1952b: 363; Wood, S. L. 1972g: 244.

Keys: Blandford 1896e: 128, Wood, S. L. 1982b: 394.

References: (hb) Wood, S. L. 1986a: 58. (ds) Wood, S. L. 1986a: 58. (tx) Arnett 1960: 1040, 1968: 1040; Blandford 1896e: 124; Chapuis 1869: 52, 1873: 260; Eggers 1923: 138; Eichhoff 1868c: 150; Hagedorn 1910a: 128, 1910d: 81; Wood, S. L. 1972c: 140, 1972g: 244, 1982b: 393, 1986a: 58.

acuminatus Schedl 1976a: 61. Holotype, sex?; Encruzilhada, Bahia, Brazil; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1976a: 61.

amazonicus (Eggers) 1929d: 60 (*Loganius*). Lectotype ♂; Brasilia (Santarem, Amazonas), designated by Anderson & Anderson 1971: 4.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 788. (tx) Anderson, W. H. & Anderson 1971: 4; Browne 1970: 543; Eggers 1929d: 60; Schedl 1962q: 486; 1979c: 17; Wood, S. L. 1972g: 244.

amazonicus Schedl 1952d: 349 (*Ceratolepis*). Syntypes, sex?; Brasilen, Santarem; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1962q: 486.

References: (tx) Schedl 1952d: 349, 1962q: 486; Wood, S. L. 1972g: 244.

atratus (Blandford) 1896e: 129 (*Loganius*). Lectotype ♀; Bugaba, Chiriqui, Panama; BMNH, London, designated by Wood 1982b: 398.

Distribution: North America (Costa Rica/Panama).

- References: (hb) Wood, S. L. 1982b: 398. (ds) Blackwelder 1947: 788; Hagedorn 1910d: 81; Kleine 1913b: 150, 1914b: 365; Wood, S. L. 1982b: 398. (tx) Blandford 1896e: 129; Hagedorn 1910a: 128; Wood, S. L. 1969a: 9, 1972g: 244, 1982b: 398.
- nitens* Wood 1969a: 9. Holotype ♂; Puerto Viejo, Heredia Prov., Costa Rica; Wood Collection. Synonymy: Wood 1972e: 190, 1972g: 244. References: (tx) Wood, S. L. 1969a: 9, 1972e: 190, 1972g: 244.
- barbatus** (Eggers) 1912c: 207 (*Minulus*). Holotype, sex?; Creta (intercepted?); Museo Zoologico, Universitatis Havniae [now Copenhagen]. Distribution: Unknown, presumably South America (intercepted at Crete). Notes: (1) Wood 1972g: 244 (to *Cnemonyx*). (3) Schedl 1939d: 407 (citation of *minulus* Eggers, nomen nudum, is apparently this species). References: (cc) Wichmann 1955a: 96. (ds) Wichmann 1955a: 96. (tx) Eggers 1912c: 207, 1923b: 138; Hopkins 1914: 125; Lucas 1920: 419; Reitter 1913: 12; de Ruelle 1970: 99; Schedl 1939d: 407, 1962q: 486, 1979c: 34; Wood, S. L. 1972c: 140, 144, 1972g: 244. (ms) Lucas 1920: 419.
- boliviae** (Blackman) 1943c: 378 (*Camptocerus*). Holotype ♀; San Borja, Beni, Bolivia; USNM, Washington. Distribution: South America (Bolivia). Notes: (1) Wood 1972g: 244 (to *Cnemonyx*). References: (tx) Blackman 1943c: 378–379; Wood, S. L. 1972g: 244.
- brevisetosus** Schedl 1939d: 407. Syntypes, sex?; Isla Martin Garcia, Argentina; Schedl Collection in NHMW, Wien and Viana Collection. Distribution: South America (Argentina). Notes: (1) Schedl 1979c: 47 (citation of holotype invalid). References: (hb) Viana 1964: 129. (ds) Blackwelder 1947: 787; Schedl 1979e: 57; Viana 1964: 129. (tx) Schedl 1939d: 407, 1951b: 283, 1951m: 75, 1952a: 445, 1979c: 47; Wood, S. L. 1972g: 244.
- confinis** (Wood) 1961d: 94 (*Loganius*). Holotype ♀; 4 miles E La Pas on road to Las Cruces, Baja California, Mexico; CAS, San Francisco. Distribution: North America (Baja California Sur in Mexico). Hosts: *Sapium biloculare*. References: (tx) Wood, S. L. 1961d: 94, 1972g: 244.
- creber** Schedl 1951m: 76. Syntypes ♂; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien and Plaumann Collection. Distribution: South America (Brazil). Notes: (1) Schedl 1979c: 68 (citation of holotype invalid). References: (ds) Schedl 1967d: 1. (tx) Schedl 1951m: 75–76, 1979c: 68; Wood, S. L. 1972g: 244.
- difformis** (Schedl) 1951m: 74 (*Loganius*). Syntypes, sex?; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien and Plaumann Collection. Distribution: South America (Brazil). Notes: (1) Wood, S. L. 1972g: 244 (to *Cnemonyx*), Schedl 1979c: 80 (citation of holotype invalid). References: (ds) Nunberg 1958a: 484. (tx) Nunberg 1958a: 484; Schedl 1951b: 284, 1951m: 74, 1958f: 34, 1979c: 80; Wood, S. L. 1972g: 244.
- cirratus* Nunberg 1958: 480, 482 (*Loganius*). Holotype ♂?; Santa Catarina, Brazil; IZV, Warsaw. Synonymy: Wood 1972g: 244. References: (tx) Nunberg 1958: 480, 482; Schedl 1960i: 103; Wood, S. L. 1972g: 244.
- equihuai** Wood 1983: 654. Holotype ♂; Km 150 carr. Melaque-Puerto Vallarta, Jalisco, Mexico; Wood Collection. Distribution: North America (Jalisco in Mexico). Hosts: *Hura polyandra*. References: (tx) Wood, S. L. 1983: 654.
- errans** (Blandford) 1896e: 127 (*Ceratolepis*). Lectotype ♂; “Mexican” tobacco refuse intercepted at Paris; BMNH, London, designated by Wood 1972e: 192. Distribution: South America (Brazil). Notes: (3) Original description cites source of type series as “Mexican” tobacco refuse; Brazil obviously was the source because all known specimens are from Brazil. References: (cc) Wichmann 1955a: 107. (ds) Blackwelder 1947: 787; Ferrer 1942; Hagedorn 1910d: 82; Kleine 1913b: 150, 1914b: 353; Wichmann 1955a: 107. (tx) Blackman 1943c: 380; Blandford 1896e: 127; Hagedorn 1910a: 127; Schedl 1936i: 104, 1940a: 329–330, 1952d: 343, 1962q: 486, 1979c: 91; Wood, S. L. 1972e: 192, 1972g: 244, 1982b: 399.
- brasiliensis* Schedl 1936i: 104 (*Ceratolepis*). Syntypes, sex?; Rio Grande do Sul, Brasil; Schedl Collection in NHMW, Wien. Synonymy: Wood 1972g: 244. Notes: (1) Schedl 1952d: 343 (to *Cnemonyx*). References: (hb) Viana 1964: 128. (ds) Blackwelder 1947: 787; Viana 1964: 128. (tx) Schedl 1936i: 104, 1951g: 289, 1951m: 75–76, 1952a: 445, 1952d: 343, 1962q: 486, 1979c: 44; Wood, S. L. 1972e: 192, 1972g: 244.
- barbatus** Schedl 1954b: 24 (*Ceratolepis*). Syntypes ♂ ♀; Brasilien; Nova Teutonia; Schedl Collection in NHMW, Wien and Plaumann Collection, preoccupied by Eggers 1912. Synonymy: Wood 1985: 267. Notes: (1) Schedl 1979c: 34 (citation of holotype invalid). References: (tx) Schedl 1954b: 24, 1962q: 486, 1979c: 34; Wood, S. L. 1972g: 244, 1985: 267.
- schedli* Wood 1972g: 244. Syntypes ♂ ♀; Brasilien; Nova Teutonia; Schedl Collection in

NHMW, Wien and Plamann Collection, automatic, unnecessary replacement name. Synonymy: Wood 1985: 267. References: (tx) Wood, S. L. 1972g: 244, 1985: 267.

euphorbiae Wood 1986c: 270. Holotype ♀; Canon de Lobos, Yautepec, Morelos, Mexico; Wood Collection.

Distribution: North America (Morelos in Mexico).

Hosts: Euphorbiaceae.

References: (tx) Wood, S. L. 1986c: 270.

evidens Wood 1983: 654. Holotype ♂; Las Granjas, Morelos, Mexico; Wood Collection.

Distribution: North America (Morelos in Mexico).

Hosts: *Ficus* sp.

References: (ds) Atkinson et al. 1986: 52. (tx) Atkinson et al. 1986: 52; Wood, S. L. 1983: 654.

exiguus (Blandford) 1896e: 130 (*Loganius*). Lectotype ♂; Bugaba, Chiriqui, Panama; BMNH, London, designated by Wood 1982b: 402.

Distribution: North America (Costa Rica/ Panama).

Hosts: (?) *Protium* sp.

References: (hb) Wood, S. L. 1982b: 401. (ds) Blackwelder 1947: 788; Hagedorn 1910d: 81; Kleine 1913b: 150, 1914b: 365; Wood, S. L. 1982b: 401. (tx) Blandford 1896e: 130; Hagedorn 1910a: 128; Wood, S. L. 1972e: 193, 1972g: 244, 1982b: 402.

pumilus Eggers 1929d: 65 (*Loganius*). Holotype ♂; Costa Rica (Turrialba); USNM, Washington. Synonymy: Wood 1972e: 193.

References: (ds) Blackwelder 1947: Nunberg 1958a: 484. (tx) Anderson, W. H. & Anderson 1971: 26; Eggers 1929d: 65; Nunberg 1958a: 484; Wood, S. L. 1972e: 193, 1972g: 244.

exilis (Wood) 1967c: 119 (*Loganius*). Holotype ♂; Volcan de Agua, Guatemala; Wood Collection.

Distribution: North America (Guatemala).

Hosts: Euphorbiaceae.

References: (hb) Wood, S. L. 1982b: 411. (ds) Wood, S. L. 1982b: 411. (tx) Wood, S. L. 1967c: 119, 1972g: 244, 1982b: 411.

fastigius (Wood) 1961d: 93 (*Loganius*). Holotype ♀; 15 km NW Acatlan, Puebla, Mexico; Wood Collection.

Distribution: North America (Puebla in Mexico). Hosts: Leche Sillo (Euphorbiaceae).

References: (hb) Wood, S. L. 1982b: 409. (ds) Wood, S. L. 1982b: 409. (tx) Wood, S. L. 1961d: 93, 1972g: 244, 1982b: 409.

ficus (Schwarz) 1896: 44 (*Loganius*). Lectotype ♂; Key West, Florida [USA]; USNM, Washington, designated by Wood 1982b: 402.

Distribution: Antilles Islands (Bahama Islands/ St. Croix in Virgin Islands), North America (Florida in USA).

Hosts: *Ficus aurea*.

References: (cn) Doane et al. 1936. (cc) Ashmead 1894: 33; Bushing 1965: 462; Pierce 1908: 391; Riley 1891c: 122. (hb) Chamberlin 1939: 236–237; Doane et al. 1936; Wood, S. L. 1982b: 402. (ds) Ashmead 1894; Atkinson et al. 1991: 157; Blatchley & Leng 1916: 587; Bright 1985c: 171; Chamberlin 1939: 236–237; Hagedorn 1910d: 81; Henshaw 1895: 44; Kleine 1913b: 149, 1934a: 168; Leng 1920: 337; Swaine 1909: 126; Wood, S. L. 1982b: 402. (tx) Blatchley & Leng 1916: 587; Bright 1985c: 171; Chamberlin 1939: 236–237; Hagedorn 1910a: 128; Schwarz 1896: 44; Swaine 1909: 126, 1918a: 48; Wood, S. L. 1961d: 88, 1962: 78, 1972g: 244, 1982b: 402.

nubilus Blackman 1943c: 380 (*Ceratolepis*). Holotype ♂; St. Croix, Virgin Islands; USNM, Washington. Synonymy: Wood 1962: 78.

References: (ds) Blackwelder 1947: 787. (tx) Blackman 1943c: 380; Schedl 1954b: 24, 1962q: 486; Wood, S. L. 1962: 78, 1972g: 244.

flavicornis (Chapuis) 1869: 53 (*Loganius*). Syn- types, sex?; Cumana; IRSNB, Brussels.

Distribution: South America (Argentina/ Brazil/ Venezuela).

References: (cn) Costa Lima 1956. (hb) Costa Lima 1956; Viana 1964: 129. (ds) Blackwelder 1947: 788; Bruch 1914a; Costa Lima 1956; Gemminger & Harold 1872: 2694; Hagedorn 1910d: 82; Kleine 1913b: 150, 1914b: 340; Schedl 1960a: 77, 1976a: 50; Viana 1964: 129. (tx) Chapuis 1869: 53, 1873: 261; Costa Lima 1956; Eggers 1929d: 60, 1931c: 18. 1933g: 18; Hagedorn 1910a: 128; Hopkins 1914: 124; Schedl 1939d: 412, 1939m: 169, 1948d: 36, 1958c: 2, 1958f: 34; Schwarz 1896: 45; Wood, S. L. 1972g: 244.

scaliger Hagedorn 1910b: 5 (*Loganius*). Holotype ♂; Argentina; Hamburg Museum, lost. Synonymy: Eggers 1933g: 18, Wood 1972g: 244.

References: (ds) Bruch 1914a; Hagedorn 1910d: 82; Kleine 1913b: 150, 1914b: 333. (tx) Eggers 1933g: 18; Hagedorn 1910a: 128, 1910b: 5; Wood, S. L. 1972g: 244.

vianai Schedl 1951b: 289. Syntypes, sex?; Argentinien, Buenos Aires: Tigre; Schedl Collection in NHMW, Wien, and Viana Collection. Synonymy: Wood 1985: 267.

Notes: Schedl 1979c: 267 (citation of holotype invalid).

References: (hb) Viana 1964: 129. (ds) Viana 1964: 129. (tx) Schedl 1951b: 288–289, 1979c: 267; Wood, S. L. 1972g: 244, 1985: 267.

furvenscens Wood 1979b: 137. Holotype ♀; 27 km NE Montoya, Santander, Colombia; Wood Collection.

Distribution: South America (Colombia).

Hosts: *Cespedesia macrophylla*.

References: (tx) Wood, S. L. 1979b: 137.

galeritus Eichhoff 1868c: 150. Holotype, sex?; Chili; Schedl Collection in NHMW, Wien.

Distribution: South America (Chile).

References: **(ds)** Blackwelder 1947: 787; Bruch 1914a; Chapuis 1869: 52, 1873: 260; Gemminger & Harold 1872: 2694; Kleine 1913b: 150, 1914b: 332; Schedl 1972d: 132, 1973d: 161. **(tx)** Chapuis 1869: 52, 1873: 260; Eggers 1923b: 138; Eichhoff 1868c: 150; Hagedorn 1910a: 128; Hopkins 1914: 118; Lucas 1920: 193; Schedl 1939d: 407, 1972d: 132, 1979c: 102; Wood, S. L. 1972g: 244.

glaber (Eggers) 1929d: 64 (*Loganius*). Holotype ♂; Ostbolivia; USNM, Washington.

Distribution: South America (Bolivia).

References: **(ds)** Blackwelder 1947: 788. **(tx)** Anderson, W. H. & Anderson 1971: 13; Eggers 1929d: 64; Wood, S. L. 1972g: 244.

glabratus (Schedl) 1940a: 329 (*Loganius*). Holotype ♀; Tumbala, Chiapas, Mexico; Schedl Collection in NHMW, Wien.

Distribution: North America (Chiapas, Oaxaca in Mexico).

References: **(hb)** Atkinson & Equihua 1986a: 420. **(ds)** Atkinson & Equihua 1986a: 420; Blackwelder 1947: 788; Ferrer 1942; Wood, S. L. 1982b: 398. **(tx)** Schedl 1939k: 722, 1940a: 329, 1979c: 105; Wood, S. L. 1972g: 244, 1982b: 398.

gracileus Wood 1969b: 10. Holotype ♂; 57 km SE El Cameron, Oaxaca, Mexico; Wood Collection.

Distribution: North America (Oaxaca in Mexico).
Hosts: Euphorbiaceae.

References: **(hb)** Wood, S. L. 1982b: 410. **(ds)** Wood, S. L. 1982b: 410. **(tx)** Wood, S. L. 1969b: 10, 1972g: 244, 1982b: 410.

hylurgoides (Schedl) 1948f: 262 (*Coptodryas*). Holotype, sex?; Brasil, St. Catharina; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

Notes: (1) Wood 1972g: 244 (to *Cnemonyx*). (3) Schedl 1952b: 363 (treated in *Coptosomus*).

References: **(tx)** Schedl 1948f: 262, 1952b: 363, 1979c: 120; Wood, S. L. 1972g: 244.

impressus (Wood) 1961d: 90 (*Loganius*). Holotype ♂; Chilpancingo, Guerrero, Mexico; Wood Collection.

Distribution: North America (Guerrero in Mexico).
Notes: Wood 1972g: 244 (to *Cnemonyx*).

References: **(ds)** Wood, S. L. 1982b: 407. **(tx)** Wood, S. L. 1961d: 90, 1972g: 244, 1982b: 407.

insidiosus (Schedl) 1939m: 171 (*Loganius*). Syn-types, sex?; Buenos Aires, Isla Martin Garcia; Schedl Collection in NHMW, Wien, and Viana Collection.

Distribution: South America (Argentina/ Bolivia).
Notes: (1) Schedl 1952d: 344 (to *Cnemonyx*), 1979c: 125 (citation of holotype invalid).

References: **(ds)** Blackwelder 1947: 788. **(tx)** Schedl 1939m: 171, 1952d: 344, 1979c: 125; Wood, S. L. 1972g: 244.

insignis Wood 1969b: 9. Holotype ♂; Moravia, Cartago Prov., Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Virola* sp.

References: **(hb)** Wood, S. L. 1982b: 397. **(ds)** Wood, S. L. 1982b: 397. **(tx)** Wood, S. L. 1969b: 9, 1972g: 244, 1982b: 397.

jucundus (Chapuis) 1869: 52 (*Ceratolepis*). Holotype ♂; Nova-Fribourg; IRSNB, Brussels.

Distribution: South America (Brazil).

References: **(ds)** Blackwelder 1947: 787; Gemminger & Harold 1872: 2694; Hagedorn 1910d: 82; Kleine 1913b: 150, 1914b: 336; Schedl 1973d: 151. **(tx)** Chapuis 1869: 52, 1873: 260; Eggers 1933: 14; Hagedorn 1910a: 127; Hopkins 1914: 117; Schedl 1952d: 349, 1962q: 486; Wood, S. L. 1972g: 244.

liratus (Wood) 1961d: 92 (*Loganius*). Holotype ♀; 20 km E Matamoros, Puebla, Mexico; Wood Collection.

Distribution: North America (Puebla in Mexico).

Hosts: Euphorbiaceae.

Notes: (1) Wood 1972g: 244 (to *Cnemonyx*).

References: **(hb)** Atkinson & Equihua 1985b: 231; Atkinson et al. 1986: 52; Wood, S. L. 1982b: 409. **(ds)** Atkinson & Equihua 1985b: 231, 1988: 86; Atkinson et al. 1986: 52; Wood, S. L. 1982b: 409. **(tx)** Wood, S. L. 1961d: 92, 1967c: 119, 1972g: 244, 1982b: 409.

longicollis (Blandford) 1896e: 128 (*Loganius*). Holotype ♀; "Mexico" tobacco refuse intercepted at Paris; BMNH, London.

Figures: Blandford 1896e: pl. 6.

Distribution: South America (Brazil).

Notes: (1) Wood 1982b: 411 (to *Cnemonyx*; the "Mexican" tobacco refuse cited in the original description is now known to have originated in Brazil).

References: **(cc)** Wichmann 1955a: 107. **(ds)** Blackwelder 1947: 788; Ferrer 1942; Hagedorn 1910d: 82; Kleine 1913b: 150, 1914b: 353; Wichmann 1955a: 107. **(tx)** Blandford 1896e: 128; Hagedorn 1910a: 128; Schedl 1940a: 329; Wood, S. L. 1972g: 244, 1982b: 411.

maculicornis (Blandford) 1896e: 127 (*Ceratolepis*). Lectotype ♀; Tole, Panama; BMNH, London, designated by Wood 1982b: 399.

Distribution: North America (Costa Rica/ Honduras/ Panama), South America (Colombia).

Hosts: *Virola* sp.

References: **(hb)** Wood, S. L. 1982b: 399. **(ds)** Blackwelder 1947: 788; Hagedorn 1910d: 82; Kleine 1913b: 150, 1914b: 365; Wood, S. L. 1982b: 399. **(tx)** Blandford 1896e: 127; Hagedorn 1910a: 127; Schedl 1962q: 486; Wood, S. L. 1972g: 244, 1982b: 399.

minor Schedl 1951m: 75. Syntypes, sex?; Brasilien, Santa Catarina; Schedl Collection in NHMW, Wien, and Plaumann Collection.

Distribution: South America (Argentina/ Brazil).
Notes: (1) Schedl 1979c: 154 (citation of holotype invalid).

References: (ds) Nunberg 1964a: 234; Schedl 1966f: 82. (tx) Nunberg 1964a: 234; Schedl 1951m: 75, 1979c: 154; Wood, S. L. 1972g: 244.

minusculus (Blandford) 1896c: 130 (*Loganius*).
Holotype ♂; Volcan de Chiriqui, Panama; BMNH, London.

Distribution: North America (Costa Rica/ Guatemala/ Veracruz in Mexico/ Panama).

Hosts: *Vismia* spp.

References: (ds) Blackwelder 1947: 788; Hagedorn 1910d: 82; Kleine 1913b: 150, 1914b: 365; Wood, S. L. 1982b: 401. (tx) Blandford 1896e: 130; Hagedorn 1910a: 128; Wood, S. L. 1972e: 193, 1972g: 244, 1982b: 401.

vismiae Eggers 1929d: 63 (*Loganius*). Holotype ♂; Costa Rica (La Caja, 8 km westlich San Jose); MNB, Berlin. Synonymy: Wood 1972e: 193.

References: (bv) Winning 1930: 42. (hb) Winning 1930: 42. (ds) Blackwelder 1947. (tx) Eggers 1929d: 63; Wood, S. L. 1972e: 193, 1972g: 244.

niger (Eggers) 1933b: 13 (*Ceratolepis*). Holotype, sex?; Franz. Guayana (St. Laurent du Maroni); MNHN, Paris.

Distribution: South America (Cayenne).

Notes: (3) Schedl 1962q: 485 (erroneously transferred this species to *Camptocerus* and renamed it *nigricans*; because the error occurred after 1960, the name has no status in nomenclature, since homonymy did not exist).

References: (ds) Blackwelder 1947: 787; Schedl 1960a: 77. (tx) Eggers 1933b: 13–14; Schedl 1952d: 349, 1960a: 77, 1962q: 486, 1979c: 166; Wood, S. L. 1974d: 278.

nigrellus Wood 1974d: 278. Holotype ♀; 16 miles W Tehuantepec, Oaxaca, Mexico; Wood Collection, automatic.

Distribution: North America (Oaxaca in Mexico).

Hosts: Euphorbiaceae.

References: (hb) Wood, S. L. 1982b: 404. (ds) Wood, S. L. 1982b: 404. (tx) Wood, S. L. 1974d: 278, 1982b: 404.

niger Wood 1961d: 95 (*Loganius*). Holotype ♀; 16 miles W Tehuantepec, Oaxaca, Mexico; Wood Collection, preoccupied by Eggers 1933.

References: (tx) Wood, S. L. 1961d: 95, 1972g: 244, 1974d: 278.

opacus Wood 1969b: 10. Holotype ♂; Playa del Coco, Guanacaste, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).

Hosts: *Hippomane macinella*.

References: (hb) Wood, S. L. 1982b: 408. (ds) Wood, S. L. 1982b: 408. (tx) Wood, S. L. 1969b: 10, 1972g: 244, 1982b: 408.

panamensis (Blandford) 1896e: 129 (*Loganius*).
Lectotype ♂; Tole, Chiriqui, Panama; BMNH, London, designated by Wood 1982b: 400.

Distribution: North America (Costa Rica/ Panama), South America (Venezuela).

Hosts: *Vismia guianensis*.

Notes: (3) Wood 1972g: 244 (to *Cnemomyx*).

References: (hb) Wood, S. L. 1982b: 400. (ds) Blackwelder 1947: 788; Hagedorn 1910d: 82; Kleine 1913b: 150, 1914b: 365; Wood, S. L. 1982b: 400. (tx) Blandford 1896e: 129; Eggers 1929d: 62–63; Hagedorn 1910a: 128; Schedl 1972q: 255; Wood, S. L. 1969b: 9, 1972g: 244, 1982b: 400.

parvus (Nunberg) 1972b: 195 (*Loganius*). Holotype ♂; Sao Paulo, Itaquera; MZUSP, Sao Paulo.
Figures: Nunberg 1972b: 196.

Distribution: South America (Brazil).

References: (tx) Nunberg 1972a, 1972b: 195–196.

prociduus (Wood) 1961d: 91 (*Loganius*). Holotype ♀; La Ceiba, Honduras; Wood Collection.

Distribution: North America (Honduras/ Veracruz in Mexico).

Notes: (1) Wood 1972g: 244 (to *Cnemomyx*).

References: (ds) Wood, S. L. 1982b: 407. (tx) Wood, S. L. 1961d: 91, 1972g: 244, 1982b: 407.

protivorus Wood 1979b: 137. Holotype ♂; 40 km SE Socopo, Barinas, Venezuela; Wood Collection.
Distribution: South America (Venezuela).

Hosts: *Protium* sp.

References: (tx) Wood, S. L. 1979b: 137.

recavus Wood 1969b: 11. Holotype ♂; 48 km E Tehuantepec, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Oaxaca, Puebla in Mexico).

Hosts: "Leche Sillo" (Euphobiaceae).

References: (hb) Wood, S. L. 1982b: 404. (ds) Wood, S. L. 1982b: 404. (tx) Wood, S. L. 1969b: 11, 1982b: 404.

rugulosus (Eggers) 1929d: 64 (*Loganius*). Holotype ♀; Ostbolivia; USNM, Washington.
Distribution: South America (Bolivia).

Notes: (1) Wood 1972g: 244 (to *Cnemomyx*).

References: (ds) Blackwelder 1947: 788. (tx) Anderson, W. H. & Anderson 1971: 28; Eggers 1929d: 64; Wood, S. L. 1972g: 244.

setulosus (Eggers) 1929d: 62 (*Loganius*). Holotype ♂; Ostbolivia; Eggers Collection, in NHMW, Wien.
Distribution: South America (Bolivia).

References: (ds) Blackwelder 1947: 788. (tx) Eggers 1929d: 62; Schedl 1979c: 226; Wood, S. L. 1972g: 244.

similis (Eggers) 1929d: 63 (*Loganius*). Lectotype ♂; Ostbolivia; USNM, Washington, designated by Anderson & Anderson 1971: 30.

Distribution: South America (Bolivia).

Notes: (1) Wood 1972g: 244 (to *Cnemomyx*).

References: (ds) Blackwelder 1947: 788; Schedl 1966f: 80. (tx) Anderson, W. H. & Anderson 1971:

30; Eggers 1929d: 63; Schedl 1979c: 229; Wood, S. L. 1972g: 244.

splendens (Wood) 1961d: 88 (*Loganius*). Holotype ♂; "Mexico" (intercepted at San Pedro, California); USNM, Washington.

Distribution: North America ("Mexico," Jalisco in Mexico).

Hosts: *Cybstax donnell-smithii*, *Hyppomane mancinella*.

References: (cc) Equihua & Atkinson 1986: 626. (hb) Atkinson & Equihua 1988: 86; Equihua & Atkinson 1986: 626. (ds) Atkinson & Equihua 1988: 86; Equihua & Atkinson 1986: 626; Wood, S. L. 1982b: 405. (tx) Wood, S. L. 1961d: 88, 1972g: 244, 1982b: 405.

squamifer Wood 1979b: 138. Holotype ♂; Tikal, Peten, Guatemala; Wood Collection.

Distribution: North America (Guatemala).

References: (ds) Estrada & Atkinson 1988: 204; Wood, S. L. 1982b: 406. (tx) Wood, S. L. 1979b: 138, 1982b: 406.

vagabundus (Wood) 1961d: 89 (*Loganius*). Holotype ♂; Key West, Florida [USA]; USNM, Washington.

Distribution: Antilles Islands (Antigua/ Dominican Republic in Hispanola/ Puerto Rico/ Virgin Islands), North America (Panama/ Florida in USA).

Hosts: *Pisida piscipala*.

References: (ds) Atkinson et al. 1991: 157; Bright 1981c: 153, 1985c: 171; Browne 1970: 543; Wood, S. L. 1982b: 406. (tx) Bright 1985c: 171; Browne 1970: 543; Wood, S. L. 1961d: 89, 1972g: 244, 1982b: 406.

vestitus (Eggers) 1929d: 59 (*Loganius*). Lectotype ♂; Ostbolivia; USNM, Washington, designated by Anderson & Anderson 1971: 35.

Distribution: South America (Bolivia/ Venezuela).

Hosts: *Trichilis propinquus*.

References: (ds) Blackwelder 1947: 788; Schedl 1966f: 80, 1976a: 50. (tx) Anderson, W. H. & Anderson 1971: 35; Eggers 1929d: 59; Schedl 1979c: 266; Wood, S. L. 1972g: 244.

vismiacolens Wood 1979b: 138. Holotype ♀; Merida, Merida, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Vismia* sp.

Notes: (1) Wood, S. L. 1981: 123 (lapsus calami corrected).

References: (tx) Wood, S. L. 1979b: 138, 1981: 123.

Genus *Camptocerus* Latreille

CAMPTOCERUS LATREILLE 1829: 91. Type-species: *Hylesinus aeneipennis* Fabricius, monobasic.

Keys: Wood 1982b: 412.

References: (hb) Wood, S. L. 1986a: 58. (ds) Wood, S. L. 1986a: 58. (tx) Blandford 1896c: 124-126; Chapuis 1869: 50-51, 1873: 258-259; Erichson 1836: 59; Hagedorn 1910a: 125-126,

1910d: 82; Lacordaire 1860: 368; Latreille 1829: 91; Schedl 1962q: 485; Wood, S. L. 1972g: 243, 1982b: 411-412, 1986a: 58.

aeneipennis (Fabricius) 1801: 392 (*Hylesinus*). Lectotype ♂; lectotype labeled Essequibo (Guyana), published as *America meridionali*; UZMC, Copenhagen, designated by Wood 1982b: 412.

Distribution: North America (Costa Rica/ Panama), South America (Argentina/ Bolivia/ Brazil/ Cayenne/ Colombia/ Guyana/ Suriname/ Venezuela).

Hosts: *Protium* spp.

References: (bv) Winning 1930: 42. (ec) Vitzthum 1926: 456. (hb) Beaver 1972; Bondar 1950: 479; Girard 1873; Winning 1930: 42-45; Wood, S. L. 1982b: 414. (ds) Beaver 1972; Blackwelder 1947: 787; Browne 1970: 543; Bruch 1914a; Chapuis 1869: 50, 1873: 258; Dejean 1821, 1825, 1837; Hagedorn 1903b: 545, 1910d: 82; Kleine 1913b: 151, 1914b: 336, 338, 1934a: 168; Lacordaire 1830: 127, 1866: 368; Nunberg 1962: 223; Schedl 1960a: 78, 1966f: 79, 1967d: 1, 1970e: 80, 1972g: 41, 1973d: 150, 1976a: 49, 1978c: 291; Sturm 1843: 229; Wood, S. L. 1982b: 414. (tx) Browne 1970: 543; Castelnau 1840; Chapuis 1869: 50, 1873: 258; Chevrolat 1838; Dejean 1821, 1825; Eggers 1928c: 90-91, 1929e: 43, 45, 1931c, 1933b: 12, 1933g: 17; Erichson 1836: 59; Fabricius 1801: 392; Gemminger & Harold 1872: 2678; Girard 1873; Hagedorn 1903b: 545, 1910a: 126, 1914: 117; Hopkins 1915c: pl. 9, fig. 15, pl. 12, fig. 15; Illiger 1907: 321; Lacordaire 1866: 368; Lucas 1920: 162; Schedl 1952h: 68, 1955d: 274, 1960a: 78; Wood, S. L. 1972g: 243, 1982b: 412, 414. (ms) Lucas 1920: 162.

gibbus Fabricius 1801: 392 (*Hylesinus*). Holotype ♀; type labeled Essequibo (Guyana), published as *America meridionali*; UZMC, Copenhagen. Synonymy: Wood 1972g: 243.

References: (ds) Hagedorn 1910d: 82; Kleine 1913b: 151; Lacordaire 1866: 369. (tx) Eggers 1931c: 17, 1933g: 17; Erichson 1836: 59; Fabricius 1801: 392; Gemminger & Harold 1872: 2678; Hopkins 1910a: 126; Lacordaire 1866: 369; Wood, S. L. 1972g: 243.

angustior Eggers 1928c: 91. Lectotype ♂; Bolivia (Yungas, 1,000 m); USNM, Washington, designated by Anderson & Anderson 1971: 4.

Distribution: South America (Bolivia/ Brazil/ Colombia/ Peru).

References: (ds) Blackwelder 1947: 787. (tx) Anderson, W. H. & Anderson 1971: 4; Eggers 1928c: 91, 1933b: 12; Schedl 1979c: 20.

atterimus Eggers 1933b: 12. Syntypes 1 ♂, 1 ♀, Brasil (Amazonenstrongebiet), ♀, Franz. Guayana (Passoura); MNHN, Paris, and Eggers Collection (USNM, Washington or NHMW, Wien?).

Distribution: South America (Cayenne/ Brazil).

References: (hb) Beaver 1972. (ds) Beaver 1972;

- Blackwelder 1947: 787; Schedl 1966f: 81, 1972g: 41, 1973d: 150. (tx) Eggers 1933b: 12; Schedl 1979c: 30.
- auricomus Blandford** 1896c: 125. Syntypes, sex[?]; Chontales, Nicaragua, Bugaba and Volcan de Chiriqui, Panama; BMNH, London.
Distribution: North America (Costa Rica/ Nicaragua/ Panama), South America (Guyana/ Venezuela).
Hosts: *Cedrela* sp., *Protium* sp., *Rhacodia edulis*.
References: (hb) Atkinson & Equihua 1986a: 420; Wood, S. L. 1982b: 416. (ds) Atkinson & Equihua 1986a: 420; Beaver 1972: 249; Blackwelder 1947: 787; Hagedorn 1903b: 546, 1910d: 82; Kleine 1913b: 151, 1914b: 365; Wood, S. L. 1982b: 416. (tx) Blandford 1896c: 125; Eggers 1943d: 245; Hagedorn 1903b: 546, 1910a: 126; Muskus, A. 1984: 69; Schedl 1979c: 31; Wood, S. L. 1969b: 11, 1982b: 416.
- charpentierae Schedl** 1970f: 582. Holotype ♂; Guyane française, Massikiri-Haut Oyapock; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil/ Cayenne).
References: (tx) Schedl 1970f: 582, 1979c: 56.
- costatus Chapuis** 1869: 51. Holotype ♂; Bresil; IRSNB, Brussels.
Distribution: Antilles Islands (Trinidad), South America (Brazil).
References: (ds) Blackwelder 1947: 787; Gemminger & Harold 1872: 2694; Hagedorn 1910d: 82; Kleine 1913b: 151, 1914b: 336; Schedl 1973d: 150; Sturm 1843: 229. (tx) Chapuis 1869: 51, 1873: 259; Eggers 1933b: 13; Gemminger & Harold 1872: 2678; Hagedorn 1910a: 126.
- infidelis Wood** 1969b: 11. Holotype ♀; Peralta, Cartago, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
References: (hb) Wood, S. L. 1982b: 415. (ds) Wood, S. L. 1982b: 415. (tx) Wood, S. L. 1969b: 11, 1982b: 415.
- inoblitus (Schedl)** 1939k: 722 (*Loganius*). Holotype ♂; Brasilien, Sta. Catharina; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
Notes: (1) Wood 1972g: 243 (to *Camptocerus*). (3) Schedl 1951: 75 (described male).
References: (hb) Viana 1964: 129. (ds) Beaver 1972; Blackwelder 1947: 788; Schedl 1966f: 81, 1973d: 151, 1976a: 49; Viana 1964: 129. (tx) Beaver 1972; Schedl 1939k: 722, 1951h: 283, 1951m: 75, 1958f: 34, 1979c: 124; Wood, S. L. 1972g: 243.
- latipilis Schedl** 1973d: 166. Holotype ♂; Brasilien, Para, Benfica, Ananindena; MZUSP, Sao Paulo.
Distribution: South America (Brazil).
References: (tx) Schedl 1973d: 166, 1979c: 137.
- major (Eggers)** 1929d: 60 (*Loganius*). Holotype ♀; Chanchamajo; Eggers Collection, in NHMW, Wien.
Distribution: South America (Brazil/ Peru).
References: (ds) Blackwelder 1947: 788; Schedl 1976a: 49. (tx) Eggers 1929d: 60; Schedl 1952d: 343, 1952h: 68, 1979c: 146; Wood, S. L. 1972g: 244.
- uniseriatus Schedl** 1972g: 54. Holotype ♂; Brasilien, Corcovado, Guanabara; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 170.
References: (tx) Schedl 1972g: 54, 1979c: 261; Wood, S. L. 1989: 170.
- morio (Schedl)** 1952d: 348 (*Loganius*). Holotype ♂; Brasilien, Santa Catarina; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1952d: 348, 1979c: 159; Wood, S. L. 1972g: 244.
- niger (Fabricius)** 1801: 393 (*Hylesinus*). Lectotype ♂; type labeled Essequibo [Guyana], published as America meridionali; UZMC, Copenhagen, designated by Wood 1982b: 415.
Distribution: North America (Costa Rica), South America (Brazil/ Cayenne/ Colombia/ Guyana/ Peru).
Hosts: *Protium* sp.
References: (hb) Beaver 1972. (ds) Beaver 1972; Blackwelder 1947: 788; Chapuis 1869: 51, 1873: 259; Hagedorn 1903b: 546, 1910d: 82; Kleine 1913b: 151, 1914b: 338; Lacordaire 1866: 369; Schedl 1966f: 79, 1973d: 151; Wood, S. L. 1982b: 415. (tx) Chapuis 1869: 51, 1873: 259; Eggers 1928c: 91, 1929e: 43, 46, 1933b: 1, 1933g: 20, 1934b: 27, 1943d: 243–244; Erichson 1836: 59; Fabricius 1801: 393–394; Gemminger & Harold 1872: 2678; Hagedorn 1903b: 546, 1910a: 126; Illiger 1907: 321; Lacordaire 1866: 369; Schedl 1940c: 205, 1962e: 486; Wood, S. L. 1982b: 415.
- squamiger Chapuis** 1869: 51. Syntypes 1 ♂, 1 ♀; Cayenne; IRSNB, Brussels. Synonymy: Eggers 1934b: 27.
References: (ds) Hagedorn 1910d: 82; Kleine 1913b: 151, 1914b: 338. (tx) Chapuis 1869: 51, 1873: 259; Eggers 1934b: 27; Gemminger & Harold 1872: 2678; Hagedorn 1910a: 126.
- striatulus Hagedorn** 1904: 547. Syntypes, sex[?]; French Guyana; MNHN, Paris. Synonymy: Eggers 1933g: 20.
References: (ds) Hagedorn 1910d: 82; Kleine 1913b: 151, 1914b: 338. (tx) Eggers 1933b: 1, 1933g: 20; Hagedorn 1904: 547, 1910a: 126.
- occidentalis Eggers** 1928c: 91. Lectotype ♂; Bolivia (Yungas de la Paz); USNM, Washington, designated by Anderson & Anderson 1971: 23.
Distribution: South America (Bolivia).
References: (ds) Blackwelder 1947: 788. (tx) Anderson, W. H. & Anderson 1971: 23; Eggers 1928c: 91–92; Schedl 1979c: 176.
- opacicolis (Eggers)** 1929d: 61 (*Loganius*). Holotype ♂; Ostbolivia; Eggers Collection, in NHMW, Wien.

- Distribution: South America (Bolivia/ Brazil).
Notes: (1) Wood 1972g: 243 (to *Camptocerus*).
References: (ds) Blackwelder 1947: 788; Schedl 1966f: 95, 1973d: 151. (tx) Eggers 1929d: 61; Schedl 1951h: 283, 1952d: 343, 1962q: 487, 1979c: 178; Wood, S. L. 1972g: 243.
- aquilus* Wood 1972g: 244. Holotype ♂; Brazil: 12 degrees 49' S, 51 degrees 46' W [apparently near Aldeia Caraya, Goias, on or near the Rio Araguaia]; BMNH, London. Synonymy: Wood 1985: 266.
References: (hb) Beaver 1972. (ds) Schedl 1976a: 49. (tx) Wood, S. L. 1972g: 244, 1985: 266.
- orientalis* Eggers 1943d: 244. Holotype ♂; Brasil (Salobro, Prov. de Bahia); Strohmeier Collection. Distribution: South America (Brazil).
References: (ds) Numberg 1962: 223; Schedl 1973d: 151, 1976a: 49. (tx) Eggers 1943d: 244; Schedl 1966f: 98, 1979c: 180.
- tectus* Eggers 1943d: 244. Holotype ♂; Brasil (Sarria da Bernada, Pernambuco); Strohmeier Collection. Synonymy: Wood 1989: 170.
References: (ds) Schedl 1966f: 80, 1976a: 50. (tx) Eggers 1943d: 244; Schedl 1966f: 98, 1979c: 250; Wood, S. L. 1989: 170.
- quadridens* Blackman 1943c: 379. Holotype ♂; Cooper's, near source of Rio Aejeta, Canal Zone, Panama; USNM, Washington. Distribution: North America (Panama).
References: (ds) Blackwelder 1947: 788; Wood, S. L. 1982b: 412. (tx) Blackman 1943c: 379–381; Wood, S. L. 1982b: 412.
- rectus* Wood 1972g: 245. Holotype ♂; Venezuela: 40 km E Canton, Barinas; Wood Collection. Distribution: South America (Venezuela).
Hosts: *Protium tenuifolium*.
References: (tx) Wood, S. L. 1972g: 245.
- seriatus* Eggers 1933b: 12. Holotype ♀; Franz. Guayana (Les roches de Kourou); MNHN, Paris. Distribution: South America (Brazil/ Cayenne).
References: (ds) Blackwelder 1947: 788; Numberg 1962: 223; Schedl 1966f: 79. (tx) Eggers 1933b: 12–13.
- suturalis* (Fabricius) 1801: 393 (*Hylesinus*). Syn-types 4, sex?; labeled Essequibo [Guyana], published as America meridionali; UZMC, Copenhagen. Distribution: South America (Brazil/ Guyana).
References: (ds) Blackwelder 1947: 788; Hagedorn 1910d: 82; Kleine 1913b: 151; Lacordaire 1866: 369; Schedl 1966f: 79, 1972g: 79, 1973d: 151. (tx) Eggers 1929e: 43, 45; Erichson 1836: 59; Fabricius 1801: 393; Gemminger & Harold 1872: 2678; Hagedorn 1910a: 126; Illiger 1907: 321; Lacordaire 1866: 369; Wood, S. L. 1972g: 243.
- fasciatus* Fabricius 1801: 392 (*Hylesinus*). Syn-types 1 ♂, 1 ♀; labeled Essequibo [Guyana], published as America meridionali; UZMC, Copenhagen. Synonymy: Wood 1972g: 243.
- References: (ds) Hagedorn 1910d: 82; Kleine 1913b: 151; Lacordaire 1866: 369. (tx) Eggers 1929e: 43; Erichson 1836: 59; Fabricius 1801: 392–393; Gemminger & Harold 1872: 2678; Hagedorn 1910a: 126; Illiger 1907: 321; Lacordaire 1866: 369; Wood, S. L. 1972g: 243.
- cinctus* Chapuis 1869: 51. Holotype, sex?; Amerique meridionale; IRSNB, Brussels. Synonymy: Wood 1972g: 243.
References: (tx) Chapuis 1869: 51, 1873: 259; Gemminger & Harold 1872: 2678; Wood, S. L. 1972g: 243.
- hirtipennis* Schedl 1973d: 165. Holotype ♂; Brasilien, Tefe (= Ega); MZUSP, Sao Paulo. Synonymy: Wood 1989: 170.
References: (tx) Schedl 1973d: 165, 1979c: 118; Wood, S. L. 1989: 170.

Genus *Scolytopsis* Blandford

- SCOLYTOPSIS BLANDFORD 1896e: 120, 123. Type-species: *Scolytopsis puncticollis* Blandford, monobasic. Keys: Eggers 1937a: 82–83, Wood 1982b: 417.
References: (hb) Wood, S. L. 1986a: 58. (ds) Blackwelder 1947: 788; Wood, S. L. 1986a: 58. (tx) Blandford 1896e: 120, 123–124; Eggers 1937a: 82–83; Hagedorn 1910a: 124–125, 1910d: 89; Wood, S. L. 1982b: 417, 1986a: 58.
- brasiliensis* Eggers 1931a: 16. Holotype ♂; Brazil (Sta. Catharina: Lages); USNM, Washington. Figures: Pedrosa-Macedo & Schonherr 1985: 7. Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 788; Pedrosa-Macedo & Schonherr 1985: 7; Schedl 1966f: 81, 1967d: 1, 1973d: 150; Schonherr & Pedrosa-Macedo 1981: 50. (tx) Anderson, W. H. & Anderson 1971: 7; Eggers 1931a: 16–17, 1937a: 82; Pedrosa-Macedo & Schonherr 1985: 7; Schedl 1979c: 45.
- laticollis* Wood 1968b: 14. Holotype ♀; 31 km SE Cameron, Oaxaca, Mexico; Wood Collection. Distribution: North America (Oaxaca in Mexico).
Hosts: (?) *Plumeria* sp., etc.
References: (hb) Wood, S. L. 1982b: 418. (ds) Wood, S. L. 1982b: 418. (tx) Wood, S. L. 1968b: 14, 1982b: 418.
- orinocanus* Wood 1971: 18. Holotype ♀; Campamento Rio Grande, 30 km E Palmar, Bolivar, Venezuela; Wood Collection. Distribution: South America (Venezuela).
Hosts: *Terminalia guianensis*.
References: (hb) Wood, S. L. 1971: 18. (tx) Wood, S. L. 1971: 18.
- peruanus* Eggers 1937a: 83. Lectotype ♀; Peru (Marcapata); USNM, Washington, designated by Anderson & Anderson 1971: 24. Distribution: South America (Peru).
References: (ds) Blackwelder 1947: 788. (tx) Anderson, W. H. & Anderson 1971: 24; Eggers 1937a: 83; Schedl 1952h: 68, 1979c: 191.

puncticollis Blandford 1896e: 123. Syntypes, sex?; Toroda, Las Mercedes, Zapote, and Rio Maria Linda, Guatemala; BMNH, London.

Distribution: Antilles Islands (Cuba), North America (Costa Rica/ Guatemala/ Veracruz in Mexico), South America (Argentina/ Brazil/ Paraguay).

Notes: (3) Schedl 1948d: 35 (*Scolytus episternatus*, nomen nudum, synonymy in Schedl 1950i: 147).

References: (cc) Equihua & Atkinson 1986: 627; Wichmann 1955a: 107. (hb) Atkinson & Equihua 1986a: 420; Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 417–418. (ds) Atkinson & Equihua 1985b: 232, 1986a: 420; Blackwelder 1947: 788; Bruch 1914a; Equihua & Atkinson 1986: 627; Ferrer 1942; Hagedorn 1910d: 87; Kleine 1913b: 154, 1914b: 334, 336, 365; Wichmann 1955a: 107; Wood, S. L. 1982b: 417–418. (tx) Blandford 1896e: 123; Eggers 1931a: 16, 1936a: 87, 1937a: 83; Hagedorn 1910a: 125; Hayward 1942: 28; Hopkins 1914: 129; Lucas 1920: 572; Schedl 1940a: 329, 1948d: 35, 1950i: 147, 1952a: 444; Wood, S. L. 1961d: 87, 1982b: 417–418. (ms) Lucas 1920: 572.

toba Wichmann 1914c: 136. Holotype, sex?; Santa Sofia, Paraguay; NHMW, Wien. Synonymy: Wood 1985: 269.

References: (ds) Blackwelder 1947: 788; Kleine 1914b: 334. (tx) Eggers 1937a: 83; Wichmann 1914c: 136; Wood, S. L. 1985: 269.

argentinensis Eggers 1937a: 84. Lectotype ♂; Argentinien (Prov. Tucuman); USNM, Washington, designated by Anderson & Anderson 1971: 4. Synonymy: Wood 1985: 269.

Notes: (1) Schedl 1979c: 25 (invalid designation of lectotype).

References: (hb) Viana 1964: 129. (ds) Blackwelder 1947: 788; Schedl 1966f: 81; Viana 1964: 129. (tx) Anderson, W. H. & Anderson 1971: 4; Eggers 1937a: 83–84; Schedl 1950i: 147, 1951b: 283, 1952a: 444–445, 1958f: 36, 1979c: 25; Wood, S. L. 1985: 269.

bruchii Schedl 1939m: 170 (*Scolytus*). Lectotype ♂; Misiones, orillas del Ignazu; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 48. Synonymy: Wood 1985: 269.

References: (hb) Viana 1964: 126. (ds) Blackwelder 1947: 788; Viana 1964: 126. (tx) Schedl 1939m: 170, 1979c: 48; Wood, S. L. 1985: 269.

cubensis Wood 1961d: 87. Holotype ♀; Cayamas, Cuba; USNM, Washington. Synonymy: Wood 1989: 175.

References: (ds) Bright 1985c: 171. (tx) Bright 1985c: 171; Wood, S. L. 1961d: 87, 1989: 175.

Genus *Scolytus* Geoffroy

SCOLYTUS GEOFFROY 1762: 309. Type-species: *Bostrichus scolytus* Fabricius, subsequent designation by International Commission on Zoological Nomenclature (ICZN) 1963a: 416, China 1963b: 416.

Ekkoptogaster Herbst 1793: 124. Type-species:

Bostrichus scolytus Fabricius, subsequent designation by Hopkins 1914: 121. Synonymy: China 1962b: 8.

References: (tx) China 1962b: 8; Herbst 1793: 124; Hopkins 1914: 121.

Coptogaster Illiger 1807: 321. Type-species: *Bostrichus scolytus* Fabricius, subsequent designation by Hopkins 1914: 118. Synonymy: Isotypical synonym of *Scolytus*.

References: (tx) Bedel 1888b: 386; China 1962b: 8; Hopkins 1914: 118; Illiger 1807: 321; Swaine 1909: 103.

Eccoptogaster Gyllenhal 1813: 346. Type-species: *Bostrichus scolytus* Fabricius, automatic, invalid emendation of *Ekkoptogaster* Herbst.

References: (tx) Blackman 1922: 41–42, 1934: 4; Butovitsch 1928: 2–3; Chamberlin 1917: 325; China 1962b: 3–8, 1963b: 416; Eggers 1912: 207, 1914: 184–185; Ganglbauer 1903: 311; Gyllenhal 1813: 346; Hagedorn 1910a: 121–124, 1910d: 82–89; Herbst 1793: 124; Ratzeburg 1837: 168, 1839: 225; Reitter 1906: 707, 1913a: 13–26; Sampson 1923b: 269; Simmel 1928: 171; Spessivtsev 1913: 29–44, 1931: 7–19; Swaine 1909: 103, 1918a: 50–52; Tredl 1907: 5; Wichmann 1912: 8–9; Zimmerman 1868: 142.

Scolytochelus Reitter 1913a: 23. Type-species: *Ips multistriatus* Marsham, subsequent designation by Wood 1982b: 419. Synonymy: Schedl 1948b: 4, Wood 1982b: 419.

References: (tx) Reitter 1913a: 23; Schedl 1948b: 4; Wood, S. L. 1982b: 419.

Ruguloscolytus Butovitsch 1929: 20. Type-species: *Bostrichus rugulosus* Muller, subsequent designation by Wood 1982b: 419. Synonymy: Wood 1982b: 419.

References: (tx) Butovitsch 1929: 20; Wood, S. L. 1982b: 419.

Archaeoscolytus Butovitsch 1929: 21, 23. Type-species: *Scolytus claviger* Blandford. Synonymy: Nomen nudum, no status (originally presented as a species group name, no generic standing).

References: (tx) Butovitsch 1929: 21, 23; Tsai, Yin, & Huang 1962: 3, 13.

Spinuloscolytus Butovitsch 1929: 21, 24. Type-species: *Ips multistriatus* Marsham, subsequent designation by Wood 1986a: 59. Synonymy: Nomen nudum, no status (originally presented as a species group name, no generic standing).

References: (tx) Butovitsch 1929: 21, 24; Wood, S. L. 1986a: 59.

Tubuloscolytus Butovitsch 1929: 21, 33. Type-species: *Eccoptogaster intricatus* Ratzeburg, subsequent designation by Wood 1986a: 59. Synonymy: Nomen nudum, no status (originally presented as a species group name, no generic standing).

- References: **(tx)** Butovitsch 1929: 21, 33; Wood, S. L. 1986a: 59.
- Pygmaecoscolytus* Butovitsch 1929: 21, 28. Type-species: *Bostrichus pygmaeus* Fabricius, subsequent designation by Wood 1986a: 59. Synonymy: *Nomen nudum*, no status (originally presented as a species group name, no generic standing).
References: **(tx)** Butovitsch 1929: 21, 28; Wood, S. L. 1986a: 59.
- Pinetoscolytus* Butovitsch 1929: 22, 48. Type-species: *Scolytus marawitzi* Semenov, monobasic. Synonymy: *Nomen nudum*, no status (originally presented as a species group name, no generic standing).
References: **(tx)** Butovitsch 1929: 22, 48.
- Confusoscolytus* Tsai & Huang 1962: 4, 14. Type-species: *Eccoptogaster confusus* Eggers, monobasic. Synonymy: Wood 1983a: 649.
References: **(tx)** Tsai & Huang 1962: 4, 14; Wood, S. L. 1983a: 649.
- Keys: Blackman 1934: 6 and Wood 1982b: 420 for North America; Bright 1976d: 25 for Canada; Schedl 1937: 156 for South America; Schedl 1948: 4 and Michalski 1973a: 137 for Europe and Asia; Yin & Huang 1980: 47 and Yin, Huang, & Li 1984: 18 for China.
References: **(ay)** Lekander 1967; Norris & Baker 1968: 955–962; Nusslin 1911, 1912; Rice 1968: 53–56; Schonherr 1970b; Van Ryn-Tournel 1975.
- (bv)** Vite 1975; Yates, M. C. 1984. **(cn)** Annand 1947: 15; Bromley 1948, 1949: 79–85; Chapman 1957: 3–4; Dietrich 1957: 33–36; Dietrich & Balin 1949: 7–11; Eichhorn & Pschorn-Walcher 1971; Felt 1933: 45–51, 1935: 231–236; Hilton 1970: 12–13; Jacot 1934: 858–859; Karaman 1972: 40–45; Karpick 1956: 160, 162; Kitchunov 1914; Ksenjopolsky 1914; Lanier et al. 1984; Liese 1952: 59–70; Martin 1936: 297–306; Myczkowski 1954: 635–636; Orr 1955: 4, 7; Peace 1954: 155–164, 1960: 38; Perry 1925: 410–413; Plumb 1950a: 110–111, 1950b: 8; Riley 1880: 298; Schlyter & Anderbrant 1987; Svatovitch-Bielikova 1915: 89–106; Theobald 1914; Vite 1975; Whitesides 1957: 31–40; Yoneyama & Phaff 1960. **(ec)** Cushman 1931: 301–304; Eichhorn & Pschorn-Walcher 1971; Johnson, P. C. 1966b; Linquist, E. E. 1970: 980; Lipa 1968: 69–78; Nickle 1967b; Peace 1960: 17; Pettersen 1976b. **(hb)** Wood, S. L. 1986a: 58. **(ds)** Balachowsky 1963a: 1255; Blackwelder 1947: 788; Bright & Stark 1973: 14; Chararas 1960a: 35; Sokanovskii 1966; Wood, S. L. 1982b: 419, 1986a: 58; Yin, Huang, & Li 1984: 18. **(tx)** Anderson, R. F. 1960: 235; Apel 1983; Arnett 1960: 1040, 1968: 1040; Balachowsky 1944: 1–26, 1949a: 52, 1963: 1255, 1969: 647–655; Barbey 1901: 34; Beal & Massey 1945: 57, 66; Bedel 1888b: 286; Beeson 1918: 114–124, 1961: 296; Blackman 1934: 1–30; Blandford 1896c: 120–123; Blatchley & Leng 1916: 587–591; Bright 1976d: 25–40; Bright & Stark 1973: 14; Butovitsch 1929: 1–72; Chamberlin 1939: 219–236, 1958: 40–51; Chapuis 1869: 53–61, 1873: 261–269; Chararas 1960a: 35; China 1962b: 3–8, 1963b; Choo 1983: 37–42; Decaux 1890: 124; Desbrochers 1892: 10–17; Dodge 1938: 16, 20–21; Eggers 1939: 114–123; Eichhoff 1864: 31, 44, 46, 1881: 148; Fisher 1937: 129; Fourcroy 1785: 139; Geoffroy 1762: 309; Hopkins 1914: 129, 135, 1915c: 219–220; ICZN 1963a: 416; Judeich & Nitsche 1895: 443; Kammernan 1950: 12; Keen 1938; Krivolutskaia 1958: 108–113, 1965; Kurenzov 1941: 75–105; Lacordaire 1866: 386–387; Latreille 1807: 204; LeConte 1876: 370–371; LeConte & Horn 1883: 520; Lekander 1951: 72–78, 1967: 123–129, 1967b; Lindemann 1875; MacLeay 1882: 347; Marsham 1802 (as *Ips*); Michalski 1968b: 184–199, 1969a: 888–898, 1969c: 659–663, 1973a; Muller 1776: 57; Munro 1926: 1–27; Murayama 1954b: 154–155; Niisima 1909: 116; Nunberg 1930: 200–208, 1954; Olivier 1789; Pfeffer 1955: 70–90, 1899a: 4; Reitter 1894: 39, 1913: 13; Roberts 1869: 85–91; Saalas 1914: 70, 74–75; Sawamoto 1943: 143; Schedl 1948b: 1–67, 1950j: 96, 1954a: 137, 1959m: 545–557, 1981b: 39; Scheepeltz & Winkler 1930: 255; Scheyrew 1890; Schimitschek 1937: 43; Schlyter & Anderbrant 1987; Schonherr 1970b; Semenov 1904: 37–38; Sokanovskii 1954: 13, 1966: 380–393; Spessivtsev 1913: 29–44, 1931: 7–19; Stresmann et al. 1989: 353; Swaine 1909: 104, 1918: 50; Thatcher 1940: 89; Trappen 1935: 140; Tsai & Li 1959; Tsai, Yin, & Huang 1962: 3, 13; Tsai et al. 1962; Wood, S. L. 1967c: 119–141, 1982b: 419–450, 1986a: 58; Van Ryn-Tournel 1975; Yin & Huang 1980: 47, 1981: 555; Yin, Huang, & Li 1984: 18.
- abaensis** Tsai & Yin 1962: 10. Holotype ♂; Miyalo, Aba Tibetan, China; IZAS, Beijing.
Figures: Michalski 1973a: pl. 27, Yin, Huang, & Li 1984: 40 (adult).
Distribution: Asia (Ningxi, Shaanxi, Shanxi, Sichuan in China).
Hosts: *Cotoneaster microphylla* var. *gracilis*.
References: **(ds)** Michalski 1973a: 91; Yin, Huang, & Li 1984: 40. **(tx)** Michalski 1973a: 91–92, pl. 27; Tsai & Yin 1962: 10, 16; Yin & Huang 1980: 48; Yin, Huang, & Li 1984: 40.
- amazonicus** Schedl 1972g: 52. Holotype ♀; Amazonas, Manaus; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: **(ds)** Browne 1970: 543. **(tx)** Schedl 1972g: 52, 1979c: 18.
- amygdali** Guerin-Meneville 1847: 47. Holotype ♀; St. Talle, Amandia, France; IRSNB, Brussels.
Figures: Balachowsky 1963a: 1261, Michalski 1973a: pl. 28.
Distribution: Africa (Egypt/ Morocco), Asia (Cyprus/ India/ Israel/ Pakistan/ Syria/ Turkey/ E USSR), Europe (Austria/ Bulgaria/ Corsica/

France/ Greece/ Italy/ Sardinia/ Sicily/ Spain/ W USSR/ Yugoslavia).

Hosts: *Amelanchier ovalis*, *Amygdalus communis*, *Mespilus germanica*, *Prunus* spp.

Notes: (3) Eggers 1912a: 49 (described form *maillieri*, no status in nomenclature).

References: (ay) Batra 1956: 63–75; Butovitsch 1929: 50–51. (cn) Acloque 1914; Anonymous 1967m; Balachowsky 1963a: 1261; Berlese 1915; Blair 1920: 15; Chorbadzhevo 1925, 1926, 1927, 1929; Fiori 1950; Garcia-Tejero 1944, 1955: 226; Gentry, J. W. 1965: 90; Grandi 1951; Hill, D. S. 1983: 509; Janjua 1947: 85–92; Janjua & Samel 1941; Jolles 1932: 251–256; Kleine 1932a: 303; Lichtenstein & Picard 1920: 54–55; Martelli 1914: 165–170, 677, 1915: 165; Mathur & Singh 1960a: 43; Morris, H. M. 1930: 47–55, 1937: 22; Picard 1921: 16; Pierce, W. D. 1917: 25; Priego 1915: 1–6; Sarra 1930: 223–227; Schaefer, L. 1964; Schimitschek 1931c: 2125; Talhouk 1976; Wachtl 1901: 381; Wilkinson 1925: 9–10; Zaklama, Awadallah, & Abdallah 1978: 187. (cc) Arambourg 1964: 115; Chararas 1956b, 1957d; Fintzescu 1930; Jannicky 1957b: 26; Kleine 1908c: 77, 1944: 79; Mendel & Gurevitz 1985; Novak 1952: 409; Russo 1926b: 84; Schaefer, L. 1964; Silvestri 1911: 1387; Thompson, W. R. 1943: 105; Thompson, W. R. & Simmonds 1964: 36, 1965: 6; Tudor 1969: 33. (hb) Anonymous 1967m; Balachowsky 1963a: 1261; Balachowsky & Mesnil 1935; Batra 1956: 63–75; Berlese 1915; Bodenheimer 1930; Chittenden 1890; Chorbadzhevo 1929; Dombrowsky 1892; Eichhoff 1881a: 41, 158; Fry 1989: 18; Grandi 1951; Gurevitz 1965; Henschel 1895a: 154; Hill, D. S. 1983: 509; Janjua 1950; Karaman 1967: 185; Kleine 1932a: 303; Lindemann 1887: 197; Mendel 1986c: 115; Roberti 1975; Rupertsberger 1880: 2289; Russo 1926: 75–86, 1931: 327–349, 1932: 87–113, 1939a: 4; Schedl 1981b: 41; Silvestri 1911: 387; Smith, J. B. 1886: 127; Stark 1952: 138; Talhouk 1976; Taschenberg 1901: 107; Tschorbadjiev 1929: 157; Wachtl 1901: 381. (ds) Acloque 1896, 1914; Anonymous 1967m; Balachowsky 1944b, 1963a: 1261; Barthe 1896; Batra 1856: 63–75; Blanchere & Robert 1889; Bodenheimer 1930; Brancsik 1874: 135; Buresh & Lazarov 1956; Butovitsch 1929: 50–51; Calwer 1884, 1893; Chapuis 1869: 61, 1873: 269; Chapuis & Candeze 1853; Chittenden 1890; Chorbadzhevo 1924d, 1929; Eggers 1912f: 29; Endrodi 1958b; Escalera 1919; Fairmaire 1880a, 1880b; Gemminger & Harold 1872: 2694; Gentry, J. W. 1965: 90; Georgiou 1977: 75; Gozis 1875: 80; Guerin-Meneville 1847: 47; Hagedorn 1910d: 83; Henschel 1895a: 154; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 708; Hill, D. S. 1963: 154, 1987: 337; Horion 1935, 1951; Israelson 1968: 154; Kleine 1913a: 307, 313, 1913b: 151, 1914a: 16, 1932a: 303, 1934a: 168; Kobakhidze 1957: 178;

Lacordaire 1866: 387; Langhoffer 1915c: 156; Lindemann 1887: 177; Lucht 1987: 275; Luigioni 1929: 990; Mathur & Singh 1960a: 43; Michalski 1973a: 92; Novak, P. 1952: 409, 1964; Nunberg 1964a: 234; Ortzen 1886: 279; Perris 1876a: 254, 1877a: 414; Pfeffer 1936: 90, 1947d: 129, 1955: 77; Pierce, W. D. 1917: 25; Pittioni 1943: 176; Ragusa 1924: 114; Reitter 1894a: 43, 1916: 272, 349; Sainte-Claire 1914: 468; Sainte-Claire & Mequignon 1938: 442; Schanfuss 1915: 1206; Schedl 1950d: 15, 1958g: 166, 1959b: 100, 1964a: 94–95, 1967c: 68, 1969g: 288, 1971d: 433, 1978e: 36, 1980a: 1, 1981b: 41; Schevyrew 1890c: 470; Schilsky 1909: 187; Seidlitz 1891a: 557; Smith, J. B. 1886: 127; Sokanovskii 1966: 389; Stark 1952: 138; Stein 1868: 114; Stein & Weise 1877: 164; Strauch 1861: 122; Tredl 1907: 6; Tschorbadjiev 1929: 157; Wichmann 1927a: 51. (tx) Acloque 1896; Anonymous 1967m: 1078; Balachowsky 1944b: 607, 1949a: 55, 1963a: 1261; Bertolini 1872; Brancsik 1874: 135–136; Butovitsch 1929: 50–51; Chapuis 1869: 61, 1873: 269; Chapuis & Candeze 1853; Chorbadzhevo 1924d; Csiki 1906; Desbrochers 1891; Dombrowsky 1892; Eggers 1911: 74, 1912a: 49, 1912f: 29; Eichhoff 1881a: 41, 158–159, 1883a: 105, 130; Endrodi 1957a, 1957b; Fauvel 1887; Guerin-Meneville 1847: 46–47; Hagedorn 1910a: 123; Henschel 1895a: 154; Israelson 1969: 154; Kuhnt 1913: 1048; Lacordaire 1866: 387; Lucht 1987: 275; Luigioni 1929: 990; Michalski 1973a: 92–94, pl. 28; Perris 1877a: 414; Portevin 1935: 311; Reitter 1894a: 43, 1913a: 22, 1916: 272, 349; Rupertsberger 1880: 228; Schedl 1934f: 1632, 1948b: 15, 1950d: 15, 1958g: 166, 1964a: 94–95, 1967c: 68, 74, 1980a: 1, 1981b: 41; Seidlitz 1891: 557; Semenov 1902: 268; Sokanovskii 1930: 803, 1966: 388–389; Stark 1952: 138; Taschenberg 1901: 107. (ms) Balachowsky 1963a: 1261.

amygdali rufipennis Brancsik 1874: 135. Synonyms: sex?, Trieste, Italy; not located. Synonymy: Schedl 1948b: 15.

References: (hb) Dombrowsky 1892. (ds) Reitter 1894a: 43; Sokanovskii 1966: 389; Stein & Weise 1877: 164. (tx) Brancsik 1874: 135; Dombrowsky 1892; Reitter 1894a: 43; Schedl 1934f: 1632, 1948b: 15; Sokanovskii 1966: 389.

anatolicus Eggers 1911a: 74 (*Eccoptogaster*). Lectotype ♂; Burna, Asiae Minoris; USNM, Washington, designated by Anderson & Anderson 1971: 4. Synonymy: Schedl 1948b: 15. References: (ds) Kleine 1913b: 151; Sokanovskii 1966: 389. (tx) Anderson, W. H. & Anderson 1971: 4; Balachowsky 1949a: 55; Butovitsch 1929: 6; Eggers 1911a: 74; Endrodi 1957: 420; Reitter 1913a: 22; Schedl 1934f: 1632, 1948b: 15; Sokanovskii 1955: 389.

aegyptiacus Pic 1919: 55. Holotype, sex?, Ghizeh, Egypt; Alfieri Collection and Pic Collection (in

- MHNN, Paris?). Synonymy: Pic 1919: 55, Balachowsky 1949a: 55.
References: (ay) Butovitsch 1929: 6, 50. (bv) Maksimovic 1979: 285. (cn) Hammad 1961: 151; Maksimovic 1979: 285. (ds) Butovitsch 1929: 6, 50. (tx) Balachowsky 1949a: 55; Butovitsch 1929: 6, 50; Hammad 1961: 151; Pic 1919: 55; Schedl 1934f: 1634, 1948b: 14.
- angustatus** Browne 1970: 575. Holotype, sex?; Brazil: Santarem; BMNH, London.
Figures: Browne 1970: 575.
Distribution: South America (Brazil/ Guyana).
References: (ds) Schedl 1976a: 49. (tx) Browne 1970: 575–576.
- antennatus** Schedl 1935f: 272. Holotype ♀; Brazil, Sao Paulo; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
Notes: (3) Schedl 1976a: 59 (described male).
References: (ds) Blackwelder 1947: 788; Schedl 1973d: 150. (tx) Schedl 1935f: 272, 1937h: 155–156, 1976a: 59, 1979c: 22.
- aomoriensis** Nobuchi 1973a: 16. Holotype ♀; Japan: Aburakawa, Aomori; Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1973a: pl. 1.
Distribution: Asia (Japan).
References: (tx) Nobuchi 1973a: 16.
- aratus** Blandford 1894d: 79. Holotype ♂; Junsai, Japan; BMNH, London.
Figures: Michalski 1973a: 29, Nobuchi 1973a: pl. 1, Tsai & Li 1959: 77, Yin, Huang, & Li 1984: 33.
Distribution: Asia (Heilongjiang in China/ Japan/ Korea/ E USSR).
Hosts: *Ulmus* spp., *Prunus* spp., *Mahis pumila*, *Machilus japonica*.
References: (ay) Butovitsch 1929: 6, 37. (cn) Anonymous 1980g. (ce) Kurenzov 1934a: 57. (hb) Krivolutsкая 1973: 130; Kurenzov 1935a: 19, 23, 1948b: 119; Stark 1952: 127. (ds) Anonymous 1980g; Blandford 1894c; Butovitsch 1929: 6, 37; Choo 1983: 38; Choo & Woo 1985: 163; Hagedorn 1910d: 83; Kleine 1913b: 151, 1914b: 259, 1934a: 168; Krivolutsкая 1965: 227, 1973: 130, 1983; Krivolutsкая & Kupyanskaya 1970; Kurenzov 1934a: 57, 1935a: 19, 23, 1936b: 350, 1938a: 58; Michalski 1973a: 94; Nobuchi 1973a: 17; Sokanovskii 1966: 381; Stark 1952: 127; Yin, Huang, & Li 1984: 33. (tx) Blandford 1894d: 79; Butovitsch 1929: 6, 37; Choo 1983: 38; Hagedorn 1910a: 123; Krivolutsкая 1958: 109–110, 1965: 227; Kurenzov 1941a: 81–82, 1948b: 119; Michalski 1968b: 189–190, 1973a: 94–96, pl. 29; Murayama 1936: 87–118, 1958: 929; Niisima 1905: 67, 71–73, 1909: 120, 1910a: 6; Nobuchi 1973a: 17, pl. 1; Schedl 1934f: 1633, 1948b: 33; Sokanovskii 1954: 14, 1966: 381, 389; Stark 1952: 127–128; Tsai & Li 1959: 77; Tsai, Yin, & Huang 1962: 4, 8; Yin & Huang 1980: 48; Yin, Huang, & Li 1984: 33.
- acquipunctatus* Niisima 1905: 71. Syntypes, sex?; Honshiu: Gifu, Hokkaido: Sapporo and Tomakomai in Prov. Iburi; Nobuchi Collection, Ibaraki. Synonymy: Schedl 1948b: 33.
Notes: (3) Niisima 1909: 121 (reduced to a variety of *aratus*).
References: (ay) Butovitsch 1929: 6, 43. (ds) Butovitsch 1929: 6, 43; Hagedorn 1910d: 83; Kleine 1913b: 151, 1914b: 259, 1934a: 168; Sokanovskii 1966: 389. (tx) Butovitsch 1929: 6, 43; Niisima 1905: 71, 1909: 121; Schedl 1934f: 1633, 1948b: 33; Sokanovskii 1966: 389.
- intermedius* Kurenzov 1941: 82. Holotype, sex?; Primorye, USSR; Kurenzov Collection, Vladivostok. Synonymy: Michalski 1973a: 94.
References: (tx) Kurenzov 1941: 82; Michalski 1973a: 94.
- brevipennis* Kurenzov 1941a: 100. Lectotype ♀; Initio fluvii Suputinka, Primorye, USSR; IZL, Leningrad, designated by Michalski 1973a: 94. Synonymy: Sokanovskii 1954: 14.
References: (hb) Kurenzov 1948b: 119; Stark 1952: 143. (ds) Sokanovskii 1966: 389; Stark 1952: 143. (tx) Kurenzov 1941a: 100, 1948b: 119; Michalski 1968a: 110, 1973a: 94; Schedl 1948b: 20; Sokanovskii 1954: 14; 1966: 389; Stark 1952: 143.
- atratus** Chapuis 1869: 58. Holotype ♀; Colombie; IRSNB, Brussels.
Distribution: South America (Colombia).
References: (ay) Butovitsch 1929: 6. (cn) Kurenzov 1935c: 189. (ds) Blackwelder 1947: 788; Butovitsch 1929: 6; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 83; Kleine 1913b: 151, 1914b: 342; Kurenzov 1935c: 189, 1936a: 110; Murayama 1935c: 189, 1954b: 154, 1955: 103. (tx) Butovitsch 1929: 6; Chapuis 1869: 58, 1873: 264; Eggers 1931a: 16; Hagedorn 1910a: 123; Krivolutsкая 1958: 110; Murayama 1950b: 1289, 1954b: 154, 1955: 103; Niisima 1909: 179; Schedl 1937h: 155–156, 160.
- azerbaidzhanicus** Michalski 1964: 662. Holotype ♂; Lenkoran, Azerbaijan, USSR; IZL, Leningrad.
Figures: Michalski 1973a: pl. 30.
Distribution: Europe (W USSR).
Hosts: *Carpinus betulus*.
References: (ds) Michalski 1973a: 97. (tx) Michalski 1964: 662, 1968a: 111, 1968b: 192, 1973a: 97–98, pl. 30; Sokanovskii 1966: 389.
- aztecus** Wood 1967c: 120. Holotype ♀; 43 km E Morelia, Michoacan, Mexico; Wood Collection.
Distribution: North America (Michoacan in Mexico).
Hosts: *Abies religiosa*.
References: (hb) Wood, S. L. 1982b: 440. (ds) Wood, S. L. 1982b: 440. (tx) Wood, S. L. 1967c: 120, 1982b: 440.

- barbatus** Schedl 1976a: 59. Holotype ♂; Encruzillada, 980 m. Bahia; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 59.
- barinensis** Wood 1971: 18. Holotype ♂; Campamento Cachicamo, 40 km E Canton, Barinas, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: "Hevecito."
References: (hb) Kirkendall 1984: 235; Wood, S. L. 1971d: 18. (tx) Wood, S. L. 1971: 18.
- belokanicus** Stark 1941: 302. Holotype ♂; Belokany, Azerbaijan, USSR; IZL, Leningrad.
Figures: Michalski 1968a: 112, 1973a:pl. 31.
Distribution: Europe (Azerbaijan in USSR).
Hosts: *Acer* sp.
References: (hb) Stark 1952: 128. (ds) Michalski 1973a: 98; Sokanovskii 1966: 389; Stark 1952: 128. (tx) Lozovoi 1960: 14; Michalski 1968a: 111–112, 1968b: 191, 1969b: 659, 1973a: 98–99, pl. 31; Schedl 1952q: 486; Sokanovskii 1954: 14, 1966: 389; Stark 1941: 302, 1952: 128–129.
- betulae** Niihima 1943: 141. Holotype ♂; Pompira (Hokkaido), Japan; Nobuchi Collection, Ibaraki.
Figures: Nobuchi 1973a:pl. 1.
Distribution: Asia (Japan).
Hosts: *Betula platyphylla*.
References: (cn) Archer 1866. (ds) Michalski 1973a: 59; Murayama 1954b: 197. (tx) Michalski 1969b: 660, 1973a: 59–60; Murayama 1954b: 197; Niihima 1943: 141; Nobuchi 1973a:pl. 1; Sawamoto 1943: 144.
- bicinctus** Schedl 1972g: 52. Holotype ♀; Brasil, Jacareacanga, Para; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1972g: 52.
- bicolor** Eggers 1931a: 15. Holotype, sex?; Guya, Ven. Mor.; MNB, Berlin.
Distribution: South America (Venezuela).
References: (ds) Blackwelder 1947: 788; Horion 1935. (tx) Eggers 1931a: 15–16.
- binodus** Wood 1982a: 230. Holotype ♀; Uxpanapa, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Oaxaca in Mexico).
Hosts: *Combretum* sp.
References: (hb) Atkinson & Equihua 1986a: 420. (ds) Atkinson & Equihua 1986a: 420. (tx) Wood, S. L. 1982a: 230.
- bituberculatus** Puzyr 1951: 46. Holotype ♂; Lobau, Nied. "Öst."; Schedl Collection in NHMW, Wien.
Distribution: Europe (Austria).
References: (hb) Schedl 1981b: 44. (ds) Lucht 1987: 275; Schedl 1980a: 1, 1981b: 44. (tx) Lucht 1987: 275; Puzyr 1951: 46; Schedl 1980a: 1, 1981b: 44.
- bolivianus** Schedl 1966f: 97. Holotype ♀; Bolivien; Schedl Collection in NHMW, Wien.
Figures: Yin, Huang, & Li 1984: 25 (adult, galleries).
Distribution: South America (Bolivia).
References: (tx) Schedl 1966f: 97, 1979c: 43.
- butovitschi** Stark 1936: 153. Lectotype ♂; Suchan, Primorye, USSR; IZL, Leningrad, designated by Michalski 1968b: 194.
Figures: Michalski 1968a: 114, 1973a:pl. 1, Yin, Huang, & Li 1984: 25.
Distribution: Asia (Hebei, Shaanxi in China/ Mongolia/ E USSR).
Hosts: *Ulmus propinqua*, *U. japonica*, *U. pumila*.
References: (cn) Kurenzov 1935c: 189. (cc) Kurenzov 1934a: 52; Yang 1959. (hb) Kurenzov 1935a: 20, 23; Stark 1952: 135; Yin, Huang, & Li 1984: 25. (ds) Krivolutsкая 1983; Krivolutsкая & Kupyanskaya 1970; Kurenzov 1934a: 52, 1935a: 20, 23, 1935c: 189, 1936b: 350; Michalski 1973a: 24; Sokanovskii 1960: 676; Stark 1952: 135; Yanovskii & Tegshzhargal 1985: 404; Yin, Huang, & Li 1984: 25. (tx) Kurenzov 1941a: 96–97; Lindeman 1961: 98, 100; Michalski 1968a: 113–114, 1968b: 194, 1973a: 24–27, pl. 1; Pfeffer 1944a: 131; Schedl 1948b: 63, 1952k: 258; Sokanovskii 1960: 676, 1966: 385; Stark 1936e: 153, 1951: 229, 1952: 135–136; Tsai, Yin, & Huang 1962: 4, 6–7; Yin & Huang 1980: 47; Yin, Huang, & Li 1984: 25. (ms) Pfeffer 1944a: 131.
- butovitschi** Eggers 1942c: 35. Syntypes 2 ♀; Suchan, Primorye, USSR; Eggers Collection, both syntypes in NHMW, Wien. Synonymy: Pfeffer 1944: 131.
References: (hb) Kurenzov 1948b: 120. (ds) Sokanovskii 1966: 381; Stark 1936e: 153. (tx) Eggers 1942c: 35–36; Kurenzov 1948b: 120; Pfeffer 1944: 131; Schedl 1948b: 63, 1952k: 158; Sokanovskii 1960: 676, 1966: 381; Stark 1951: 229.
- carinatus** Chapuis 1869: 55. Syntypes 2 ♂; Carthagene [Argentina]; IRSNB, Brussels.
Distribution: South America (Argentina).
References: (ay) Butovitsch 1929: 6. (hb) Eichhoff 1881a: 41, 164. (ds) Blackwelder 1947; Butovitsch 1929: 6; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 83; Kleine 1913b: 151, 1914b: 342; Schedl 1973d: 161. (tx) Bedel 1857: 191; Butovitsch 1929: 6; Chapuis 1869: 55, 1873: 263; Eichhoff 1881a: 41, 164, 1883a: 105, 130; Fanvel 1889; Hagedorn 1910a: 123; Hoffmann 1939: 37; Schedl 1937h: 155, 161, 1958f: 35–36.
- carpini** (Ratzeburg) 1837: 157 (*Eccoptogaster*). Syntypes, sex?; Germany; ZIFH, Eberswalde.
Figures: Barbier & Menier 1975: 118; Balachowsky 1949a: 78; Michalski 1973:pl. 32.
Distribution: Asia (Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ France/ Germany/ Greece/ Hungary/ Italy/ Luxembourg/

Netherlands/ Poland/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Carpinus* spp., *Fagus* spp., *Ostrya carpinifolia*.

References: (ay) Escherich 1923b: 477, 515; Scholz 1905: 144. (bv) Barbier & Menier 1975; Barr, B. A. 1969: 643; Chararas 1980b: 562; Grune 1979: 35; Meixner 1937: 1214; Michalski 1959c: 167; Prell 1930c: 629, 1931: 368. (cn) Acatay 1943a: 57–58; Barbey 1925: 637; Chorbadzhiyev 1929; Escherich 1923b: 477, 515; Gabler 1955; Georgescu et al. 1957: 357, 406; Hess & Beck 1914: 242, 1927: 297; Judeich & Nitsche 1895: 444; Kleine 1932a: 303; Nusslin 1913: 232; Packard 1890: 860; Pierce, W. D. 1917: 137; Pomerantzev 1903: 118, 1938: 19; Rhumbler 1927: 285; Schimitschek 1955a: 156, 1955c: 73; Schwerdtfeger 1944a: 174, 1957a: 182; Wachtl 1901: 380; Wichmann 1927b: 358. (ec) Apel 1983; Barbier & Menier 1975; Boucek 1957b: 80; Chararas 1957d; Elhnstrom 1983; Fleischer 1911; Graham 1969: 875; Jammicky 1957b: 20, 1957c; Kleine 1908c: 177, 1909a: 42, 1944: 72–73; Meyer 1934: 612; Nosek 1959a: 118, 1959b: 87; Nusslin 1927: 285; Pfeffer 1923a: 329, 1928b: 7, 1931b: 73, 1943b: 180; Schimitschek 1936a: 560, 1955a: 156; Schwerdtfeger 1944a: 174, 1957a: 182; Thompson, W. R. 1943: 105. (hb) Acatay 1943a: 57; Altum 1881c: 250; Apel 1983; Barbey 1925: 637; Barbier & Menier 1975; Bukowsky 1930; Butovitsch 1929: 6, 36; C. 1928; Cecconi 1924; Chittenden 1890; Chorbadzhiyev 1929; Decaux 1890f, 1892: 241, 1893: 42; Dombrowsky 1887, 1892; Eckstein 1897; Elhnstrom 1983; Eichhoff 1881a: 41, 153; Escherich 1923b: 477, 515; Gabler 1953; Gyorf 1957; Hagedorn 1903a; Henschel 1876a: 206, 242, 1895a: 155; Hess & Beck 1914: 242, 1927: 297; Judeich & Nitsche 1895: 444; Karpinski 1933b: 23; Karpinski & Strawinski 1948: 153; Kleine 1932a: 303; Knotek 1894a: 553, 1897: 142, 1898b: 320; Lengerken 1939: 50; Lunardoni & Leonardi 1889: 451; Marcu 1941: 401; Michalski 1959c: 167; Michel 1935: 41–43; Nordlinger 1856: 45; Nosek 1959a: 118, 1959b: 87; Nusslin 1898: 276, 1913: 232, 1927: 285; Packard 1890: 860; Palm 1955b: 145; Pomerantzev 1903: 118–124; Portevin 1935: 310; Postner 1974: 386; Prell 1930c: 629, 1931: 368; Ratzeburg 1837: 186, 1839: 230; Rhumbler 1927: 285; Rupertsberger 1880: 228; Schedl 1981b: 42; Schimitschek 1955a: 156; Schwerdtfeger 1944a: 174, 1957a: 182, 1981: 188; Simmel 1928: 154–155, 159; Smith, J. B. 1886: 127; Spessivtsev 1913a: 44; Stark 1952: 133; Taschenberg 1880: 243; Tschorbadjiev 1929: 155; Wachtl 1901: 380; Wichmann 1910b: 209, 1927b: 358. (ds) Aeloque 1896; Arnoldi et al. 1955: 650; Andras & Schaefer 1957; Balachowsky 1943a, 1944b, 1949a: 167; Barth 1896; Ban 1888; Bedel 1888b: 388, 405–406; Borchert 1951; Brakman 1966b: 203; Bucking

1932; Bukowsky 1930; Buresh & Lazarov 1956; Butovitsch 1929: 6, 36; Calwer 1884, 1893; Chapuis 1869: 60, 1873: 268; Chapuis & Candeze 1853; Chittenden 1890; Chorbadzhiyev 1924d, 1929; Eder 1934; Eggers 1904; Endrodi 1958a, 1958b; Escalera 1919; Escherich 1923b: 477, 515, 1932b; Fauvel 1885; Fedorov 1930; Fowler 1891; Gaubil 1849: 127; Gemminger & Harold 1872: 2695; Gerhardt 1902; Gozis 1875: 80; Grune 1979: 35; Hagedorn 1903a, 1910d: 83; Hellen 1947; Henschel 1895a: 155; Heyden 1876: 296; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 708; Horion 1951; Jazentkovsky 1912: 286; Judeich & Nitsche 1895: 444; Kaltenback 1874: 639; Karpinski 1925: 215, 1931: 18, 21, 38, 1933b: 23, 1948b: 228; Karpinski & Strawinski 1948: 153; Klefbeck & Sjöberg 1960; Kleine 1912a: 267, 1913a: 34, 1913b: 151, 1932a: 303, 1934a: 168; Knotek 1892a: 35, 1894a: 553, 1898b: 320; Koltze 1901: 152; Kraatz 1869: 59; Kurir 1947c: 22; Lacordaire 1866: 387; Langhoffer 1915c: 156; Leclercq 1971; Lomnicki 1886a: 241, 1913b: 147; Lucht 1987: 275; Luigioni 1929: 990; Lunardoni & Leonardi 1889: 451; Michel 1935: 41; Michalski 1973a: 100; Negru 1966b: 398, 1968a: 454; Numberg 1928b: 87, 93, 1954: 92; Nusslin 1898: 276; Palm 1955b: 144–145, 1959: 19, 26, 346; Perris 1876a: 254, 1877a: 414; Pfeffer 1928b: 7, 1931b: 73, 1989a: 51; Pierce, W. D. 1917: 137; Pittioni 1943: 174; Postner 1974: 386; Rapp 1934: 717; Ratzeburg 1837: 186, 1839: 230; Redtenbacher 1858: 838, 1874: 373; Reitter 1869b: 154, 1894a: 42, 1916: 271; Revy & Siroki 1942: 82; Roubal 1941: 255; Ruskov 1928c: 61; Sainte-Claire & Mequignon 1938: 443; Schaufuss 1915: 1204; Schaum 1859: 95, 1862: 101; Schedl 1961b: 185, 1966f: 81, 1980a: 1, 1981b: 42; Scheyrew 1890c: 469; Schilsky 1891: 157, 1909: 187; Schmans 1960: 32; Schwerdtfeger 1981: 188; Seidlitz 1872: 390, 1891a: 557, 1891b: 602; Simmel 1925: 154–171; Smith, J. B. 1886: 127; Sokolovskii 1966: 390; Stark 1926b: 101, 1927b: 86, 1952: 133; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 436; Sturm 1843: 229; Tredl 1907: 6, 1915a: 153; Tschorbadjiev 1929: 155; Westhoff 1882: 238; Wichmann 1910b: 209, 1927a: 50. (tx) Aeloque 1896; Apel 1983; Bach 1854; Balachowsky 1943a: 167, 1944b: 22, 1949a: 69, 81; Barbier & Menier 1975: 118; Bedel 1888b: 388, 405–406; Butovitsch 1929: 6, 36; Chapuis 1869: 60, 1873: 268; Chapuis & Candeze 1853; Chorbadzhiyev 1924d; Csiki 1906; Desbrochers 1891; Dombrowsky 1887, 1892; Eggers 1908: 215, 1911a: 75, 1912a: 47, 1913a: 286, 1914: 108, 1923b: 133; Eichhoff 1881a: 41, 153, 1883a: 105, 129; Endrodi 1957b: 420; Escherich 1923b: 477, 515; Escherich & Escherich 1897; Fauvel 1885, 1889; Ferrant 1911; Formanek 1907: 10; Gabler 1955; Grune 1979: 34–35; Hagedorn 1910a: 123; Henschel 1876a: 206, 242, 1895a: 155; Judeich & Nitsche 1895: 444; Kalina 1969;

- Karpinski & Strawinski 1948: 153; Knotek 1892a: 35; Kuhn 1913: 1048; Lacordaire 1866: 357; Letzner 1891: 374; Lemis 1886: 153; Lucht 1957: 275; Luigioni 1929: 990; Lmardoni & Leonardi 1889: 451; Meixner 1937: 1217; Michalski 1959c: 169, 1967: 315, 1973a: 100–101, 1973a:pl. 32; Negrn 1966b: 398; Nordlinger 1848: 255, 1856: 45; Nunberg 1954: 92; Perris 1877a: 414; Pfeffer 1932b: 10, 1955a: 89–90; Postner 1974: 356; Quaschik 1953: 35; Ratzeburg 1837: 186, 1839: 230; Redtenbacher 1849: 792, 1849b: 27, 1858: 838, 1874: 373; Reitter 1894a: 42, 1913a: 20, 1916: 271; Rhumbler 1927: 285; Rupertsberger 1880: 228; Schedl 1934f: 1633, 1948b: 30, 1952f: 86, 1980a: 1, 1981b: 42; Schimitschek 1937: 43, 1955c: 73; Seidlitz 1872: 390, 1891a: 557, 1891b: 602; Sokanovskii 1954: 15, 1966: 389–390; Spesivtsev 1913a: 44, 1931: 19; Stark 1941: 299–302, 1952: 133–134; Stierlin 1898: 436; Stresemann et al. 1989: 353; Taschenberg 1880: 243. (ms) Escherich 1932b.
- peregrinus* Eggers 1908c: 214 (*Eccoptogaster*). Holotype ♂; not given, Eggers (1912a: 47) gave *Sos*, *Gallia meridionalis*; USNM, Washington. Synonymy: Schedl 1948b: 31. References: (ay) Butovitsch 1929: 37. (ds) Arnoldi et al. 1955: 657; Butovitsch 1929: 37; Hagedorn 1910d: 85–86; Kleine 1913b: 152. (tx) Anderson, W. H. & Anderson 1971: 24; Balachowsky 1949a: 81; Butovitsch 1929: 37; Eggers 1908c: 214–215, 1912a: 47; Endrodi 1957: 420; Hagedorn 1910a: 123; Reitter 1913a: 22; Schedl 1934f: 1633, 1948b: 31, 1979c: 189.
- balcanicus* Eggers 1911a: 75. Syntypes ♂ ♀; Bjelasnica-planina in Bosnia (Michalski 1973a: 100 gives Kievo prope Sarajevo, Yugoslavia); repository? Synonymy: Balachowsky 1949a: 81. References: (ay) Butovitsch 1929: 6, 37. (hb) Simmel 1928: 161. (ds) Butovitsch 1929: 6, 37; Horion 1935; Kleine 1913a: 307, 1913b: 151, 1934a: 165; Reitter 1916: 349; Schaufuss 1915: 1206; Sokanovskii 1966: 390. (tx) Balachowsky 1949a: 81; Butovitsch 1929: 6, 37; Eggers 1911a: 75, 1913a: 286, 1923b: 133; Michalski 1973a: 100; Reitter 1916: 349; Schedl 1934f: 1633, 1948b: 81, 1979c: 32; Simmel 1928: 156, 161; Sokanovskii 1954: 15, 1966: 390.
- caudatus* Eggers 1931b: 35. Lectotype ♂; Rio de Janeiro, Brazil; USNM, Washington, designated by Anderson & Anderson 1971: 9. Distribution: South America (Brazil). References: (ds) Blackwelder 1947: 788. (tx) Anderson, W. H. & Anderson 1971: 9; Eggers 1931b: 35–37; Schedl 1979c: 55.
- pseudocaudatus* Eggers 1931: 37. Holotype, sex?; Sao Paulo; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1963h: 257. References: (ds) Blackwelder 1947: 788; Eggers 1931: 37; Schedl 1963h: 257.
- chelogaster* Schedl 1958g: 168. Syntypes 2♂, 2♀; Asam, Naga Hills, 3000 ft.; 4 syntypes in Schedl Collection in NHMW, Wien. Distribution: Asia (Assam in India). Hosts: *Ulmus lancifolia*. Notes: (1) Schedl 1979c: 56 (citation of holotype invalid). (3) A series is in the FRI, Dehra Dun, but none of the specimens sent to Schedl were ever returned, all 4 syntypes are in the NHMW, Wien. References: (cn) Mathur & Singh 1961b: 63. (ds) Beeson 1961: 296; Mathur & Singh 1961: 63. (tx) Schedl 1958g: 168–169, 1979c: 56.
- chikisanii* Niisima 1905: 69. Syntypes, sex?; Sapporo and Mt. Moiva, Hokkaido, Japan; Nobuchi Collection, Ibaraki. Figures: Michalski 1973a:pl. 16, Nobuchi 1973a:pl. 1, Sokanovskii 1966: 374. Distribution: Asia (Shanxi in China/ Japan/ Korea/ E USSR). Hosts: *Ulmus carpinifolia*, *U. laciniata*, *U. campestris*, *U. japonica*. References: (ay) Butovitsch 1929: 47. (ce) Inouye et al. 1955: 88; Kurenzov 1934a: 52. (hb) Inouye et al. 1955: 88; Kurenzov 1935a: 23, 1948b: 119; Stark 1952: 114. (ds) Butovitsch 1929: 47; Hagedorn 1910d: 84; Kleine 1913b: 151, 1914b: 259, 1934a: 168; Krivolutsкая 1953; Kurenzov 1934a: 52, 1935a: 23, 1936a: 111, 1936b: 350, 1938a: 58; Michalski 1973a: 60; Murayama 1954b: 197; Nobuchi 1973a: 17; Sokanovskii 1966: 381; Stark 1952: 114. (tx) Butovitsch 1929: 47; Hagedorn 1910a: 123; Krivolutsкая 1955: 110, 1965: 225–226; Kurenzov 1941a: 85–87, 1948b: 119; Michalski 1969c: 660, 1973a: 60–62, pl. 16; Murayama 1954b: 197; Niisima 1905: 69, 1909: 118; Nobuchi 1973a: 17, pl. 1; Schedl 1934f: 1633, 1941a: 42–43; 1948b: 42; Sokanovskii 1954: 14, 1966: 381–384; Stark 1952: 114.
- curviventralis* Niisima 1905: 70. Syntypes, sex?; Hokkaido: Mt. Moiva, near Sapporo; Nobuchi Collection, Ibaraki. Synonymy: Sokanovskii 1954: 14. References: (ay) Butovitsch 1929: 6, 47. (cn) Kurenzov 1935c: 189. (hb) Kurenzov 1935a: 19, 24, 1948b: 120; Stark 1956: 126. (ds) Butovitsch 1929: 6, 47; Hagedorn 1910d: 84; Kleine 1913b: 151, 1914b: 259, 1934a: 168; Kurenzov 1935a: 19, 24, 1935c: 189, 1936b: 350; Murayama 1936a: 122, 1940a: 230, 1942a: 53, 1954b: 154; Stark 1952: 126. (tx) Butovitsch 1929: 6, 47; Hagedorn 1910a: 123; Kurenzov 1941a: 86, 1948b: 120; Murayama 1936a: 122, 1940a: 230, 1954b: 154; Niisima 1905: 70, 1909: 119; Nobuchi 1973a:pl. 1; Schedl 1934f: 1633, 1948b: 41; Sokanovskii 1954: 14, 1956: 383, 1966: 386; Stark 1952: 126–127.
- mandschuricus* Schedl 1941a: 42. Syntypes, sex?; Weishache, Manchuria; Frey Collection in NHMBS, Basel, IPKE, Eberswalde, Schedl

Collection in NHMW, Wien. Synonymy: Sokanovskii 1954: 14.

References: (tx) Schedl 1941a: 42, 1948b: 40, 1979c: 148; Sokanovskii 1954: 14.

claviger Blandford 1894d: 80. Holotype ♂; Kiga, Japan; BMNH, London.

Figures: Michalski 1973a: pl. 2, Nobuchi 1973a: pl. 1, Sokanovskii 1966: 382.

Distribution: Asia (Japan/ Korea/ E USSR).

Hosts: *Carpinus cordata*, *C. japonica*, *C. laxiflora*.

References: (ay) Butovitsch 1929: 23–24. (bv) Barr, B. A. 1969: 643. (cn) Kurenzov 1935c: 187; Shiraki 1952. (ec) Kurenzov 1934a: 57. (hb) Kurenzov 1935a: 19, 22, 1948b: 114; Stark 1952: 95. (ds) Blandford 1894c; Butovitsch 1929: 23–24; Cho 1957; Choo 1983: 38; Choo & Woo 1985: 163; Choo, Woo, & Park 1983: 176; Hagedorn 1910d: 84; Kleine 1913b: 151, 1914b: 259, 1934a: 168; Ko 1969: 283; Kurenzov 1934a: 57, 1935a: 19, 22, 1935c: 187, 1936b: 350, 1965; Michalski 1973a: 27; Murayama 1929b: 2, 1930b: 5, 1936b: 118, 1937b: 374, 1954b: 154; Nobuchi 1973a: 18; Shiraki 1952; Sokanovskii 1966: 388; Stark 1952: 95. (tx) Blandford 1894d: 80; Butovitsch 1929: 23–24; Choo 1983: 38; Claus 1958; Eggers 1914: 185; Hagedorn 1910a: 123; Kurenzov 1941a: 77–78, 1948b: 114; Michalski 1973a: 27–28, pl. 2; Murayama 1930b: 5–6, 1934c: 298, 1937b: 374, 1954b: 154; Niisima 1909: 122; Nobuchi 1973a: 18, pl. 1; Schedl 1934f: 1632, 1948b: 58; Sokanovskii 1954: 13, 1966: 382, 388; Stark 1952: 95–96, 146–147; Tsai, Yin, & Huang 1962: 4.

platystylus Wichmann 1915b: 213. Holotype ♂; Eastern Siberia (Amur), USSR; Wichmann Collection, not located. Synonymy: Schedl 1948b: 58.

References: (ay) Butovitsch 1929. (hb) Arnoldi et al. 1955: 657; Stark 1952: 146. (ds) Butovitsch 1929: 9; Sokanovskii 1966: 388; Stark 1952: 146. (tx) Butovitsch 1929: 9; Kurenzov 1941a: 93–95; Murayama 1930: 38; Schedl 1948b: 58; Sokanovskii 1954: 13, 1966: 388; Stark 1952: 146; Wichmann 1915b: 213–214.

conidens Browne 1970: 574. Holotype ♀; Brazil: Bahia; BMNH, London.

Distribution: South America (Brazil).

References: (tx) Browne 1970: 574–575.

convexus Schedl 1972g: 53. Holotype, sex?; Brasilia, Bocoaina (Pa.), 20.0.8, 49.04, 1000 m; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1972g: 53, 1979c: 65.

costellatus Chapuis 1869: 58. Holotype ♀; Bresil, Nova-Fribourg; IRSNB, Brussels.

Distribution: North America (Costa Rica), South America (Brazil/ Venezuela).

Hosts: Liana.

References: (ay) Butovitsch 1929: 6. (cn) Costa Lima 1956. (hb) Costa Lima 1956. (ds) Black-

welder 1947: 788; Blandford 1896e: 121–123; Butovitsch 1929: 6; Costa Lima 1956; Ferrer 1942; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 84; Kleine 1913b: 151, 1914b: 336, 353; Wood, S. L. 1982b: 444. (tx) Blandford 1896e: 121–123; Butovitsch 1929: 6; Chapuis 1869: 58, 1873: 266; Costa Lima 1956; Hagedorn 1910a: 123; Schedl 1937h: 155–156, 1940a: 329; Wood, S. L. 1982b: 444.

cristatus Wood 1969b: 12. Holotype ♂; Lower Rio Tempisque, Guanacaste, Costa Rica; Wood Collection.

Figures: Wood 1969b: 13.

Distribution: North America (Costa Rica/ Colima, Jalisco in Mexico), South America (Venezuela).

Hosts: Liana.

References: (ec) Equihua & Atkinson 1986: 627. (hb) Atkinson et al. 1986: 54; Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 445. (ds) Atkinson & Equihua 1988: 100; Atkinson et al. 1986: 54; Equihua & Atkinson 1986: 627; Estrada & Atkinson 1988: 204; Wood, S. L. 1982b: 445. (tx) Wood, S. L. 1969b: 12–13, 1982b: 445.

dahuricus Chapuis 1869: 60. Holotype ♂; Siberie, Daourie [USSR]; IRSNB, Brussels.

Figures: Michalski 1973a: pl. 34, Nobuchi 1973: pl. 1, Tsai & Li 1959: 78.

Distribution: Asia (Heilongjiang in China/ Japan/ Sakhalin Island/ E USSR).

Hosts: *Betula* spp.

References: (ay) Butovitsch 1929: 7, 37; Takenouchi 1974. (cn) Kurenzov 1935c: 189. (hb) Budkov 1897; Krivolutsкая 1973: 130; Kurenzov 1935a: 21, 1948b: 117; Stark 1952: 133; Yin, Huang, & Li 1984: 31. (ds) Budkov 1897; Butovitsch 1929: 7, 37; Dejean 1937; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 84; Heyden 1881: 177, 1893: 177, 1898: 76; Kleine 1913b: 151, 1914b: 250; Krivolutsкая 1973: 130, 1983; Kurenzov 1935a: 21, 1935c: 189, 1938a: 61; Michalski 1973a: 104; Murayama 1954b: 154; Nobuchi 1973a: 18; Reitter 1894a: 42; Scheyrew 1890c: 471; Sokanovskii 1966: 381; Stark 1952: 133; Yanovskii & Tegshzhargal 1985: 415; Yin, Huang, & Li 1984: 31. (tx) Blandford 1894d: 78–79; Butovitsch 1929: 7, 37; Chapuis 1869: 60, 1873: 268; Eggers 1922d: 116, 1933d: 75; Hagedorn 1910a: 123; Heyden 1893: 177; Krivolutsкая 1958: 109–110; Kurenzov 1935: 21–22, 1941a: 79–81, 1948b: 117; Michalski 1968b: 194, 1969c: 659, 1973a: 104–107, pl. 34; Murayama 1954b: 154; Niisima 1943: 140–142; Nobuchi 1973a: 19, pl. 1; Reitter 1894a: 42, 1913a: 21; Sawamoto 1943: 144; Schedl 1934f: 1633, 1948b: 34; Semenov 1902: 267; Sokanovskii 1930: 803, 1954: 15, 1966: 381; Stark 1938: 129, 1941: 301, 1952: 133–135; Tsai & Li 1959: 78; Tsai, Yin, & Huang 1962: 3–4, 8; Yin & Huang 1980: 48; Yin, Huang, & Li 1984: 31.

agnatus Blandford 1894d: 78. Holotype ♀; Junsai,

Japan; BMNH, London. Synonymy: Niisima 1943: 142.

References: (ay) Butovitsch 1929: 6, 47. (ds) Butovitsch 1929: 6, 47; Hagedorn 1910d: 83; Kleine 1913b: 151, 1914b: 259, 1934a: 168. (tx) Blandford 1894d: 78; Butovitsch 1929: 6, 47; Hagedorn 1910a: 123; Niisima 1905: 67, 1909: 119, 1910a: 2, 1943: 142; Schedl 1934f: 1633, 1947c: 63, 1948b: 28.

possyeti Stark 1938: 129. Lectotype ♀; Posieti, southern Primorye, USSR; IZL, Leningrad, designated by Michalski 1973a: 104. Synonymy: Schedl 1948b: 34.

References: (hb) Kurenzov 1948b: 117; Stark 1952: 134. (ds) Kurenzov 1965; Sokanovskii 1966: 389; Stark 1952: 134. (tx) Kurenzov 1948b: 117; Michalski 1968a: 113, 1973a: 104; Schedl 1948b: 34; Sokanovskii 1954: 15, 1966: 389; Stark 1938: 129, 1952: 134.

dentatus Bright 1964: 167. Holotype ♂; Cone Peak, Monterey Co., California [USA]; CAS, San Francisco.

Figures: Bright 1964: 165, Edson 1967: 49 (adult), 57 (galleries).

Distribution: North America (California in USA). Hosts: *Abies bracteata*.

References: (ay) Thomas, J. B. 1967. (ec) Furniss, R. L. & Carolin 1977: 403; Kinn 1971. (hb) Bright & Stark 1973: 14; Edson 1967: 22; Furniss, R. L. & Carolin 1977: 403; Wood, S. L. 1982b: 443. (ds) Bright & Stark 1973: 14; Edson 1967: 22; Furniss, R. L. & Carolin 1977: 403; Wood, S. L. 1982b: 443. (tx) Bright 1964: 167–168; Edson 1967: 22, 49; Thomas, J. B. 1967; Wood, S. L. 1982b: 443.

dimidiatus Chapuis 1869: 57. Syntypes ♂ ♀; Toxpan [Veracruz, Mexico], and Cuba; IRSNB, Brussels.

Figures: Blandford 1896e: pl. 5.

Distribution: Antilles Islands (Cuba), North America (Costa Rica/ Guatemala/ Veracruz in Mexico), South America (Venezuela).

Hosts: *Lonchocarpus margaritensis*, *L. sp.*

References: (ay) Butovitsch 1929: 7. (cn) Downes & Williams 1950: 39; Ishikura 1966. (hb) Kirkendall 1984: 235; Wood, S. L. 1982b: 447. (ds) Blackwelder 1947: 788; Blandford 1896e: 121–122; Bright 1972d: 27, 1985c: 171; Butovitsch 1929: 7; Ferrer 1942; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 84; Ishikura 1966; Kleine 1913b: 151, 1914b: 353, 365, 378; Murayama 1957a: 36; Schedl 1963c: 156, 1977e: 41; Wood, S. L. 1982b: 447. (tx) Blandford 1896e: 121–122; Bright 1972d: 27, 1985c: 171; Browne 1970: 574; Butovitsch 1929: 7; Chapuis 1869: 57, 1873: 265; Hagedorn 1910a: 123; Schedl 1935f: 272, 1940a: 329; Wood, S. L. 1956c: 258, 1982b: 447.

ecksteini Butovitsch 1929: 26. Holotype ♂; Massota, Caucasus, USSR; Butovitsch Collection, Stockholm.

Figures: Michalski 1973a: pl. 3.

Distribution: Europe (W USSR), Asia (Iran).

Hosts: *Ulmus carpinifolia*.

References: (ay) Butovitsch 1929: 26. (cn) Goidanich & Goidanich 1934, (hb) Stark 1952: 96. (ds) Butovitsch 1929: 26; Kleine 1934a: 168; Michalski 1973a: 28; Sokanovskii 1966: 387; Stark 1952: 96. (tx) Butovitsch 1929: 26; Michalski 1973a: 28–30, pl. 3; Murayama 1930: 9–10; Schedl 1934f: 1632, 1948b: 63; Sokanovskii 1958: 37, 1966: 385–387; Stark 1952: 96–97.

eichhoffi Reitter 1894a: 40. Holotype ♂; Lenkoran, Azerbaijan, USSR; NHMB, Budapest.

Figures: Michalski 1973a: pl. 17, Sokanovskii 1966: 384.

Distribution: Europe (Bulgaria/ Azerbaijan in USSR), Asia (Iran).

References: (ay) Butovitsch 1929: 7, 42. (cn) Chorbazdzhevo 1929. (hb) Adeli 1972: 14; Chorbazdzhevo 1929; Stark 1952: 111; Tschorbazdzhev 1929: 154. (ds) Adeli 1972: 14; Buresh & Lazarov 1956; Butovitsch 1929: 7, 42; Chorbazdzhevo 1924d, 1929; Hagedorn 1910d: 54; Heyden, Reitter, & Weise 1906: 708; Kleine 1913b: 151, 1934a: 168; Michalski 1973a: 63; Reitter 1894a: 40; Schaufuss 1915: 1206; Sokanovskii 1966: 383; Stark 1952: 111; Tschorbazdzhev 1929: 154. (tx) Balachowsky 1949a: 73; Butovitsch 1929: 7, 42; Chorbazdzhevo 1924d; Eggers 1908b: 144, 1941c: 123; Hagedorn 1910a: 123; Michalski 1973a: 63–64, pl. 17; Reitter 1894a: 40, 1913a: 15–16; Schedl 1934f: 1633, 1948b: 43, 1964k: 221; Sokanovskii 1966: 383–384; Stark 1952: 111.

iranicus Eggers 1941c: 123. Holotype ♀; Iran (Astrabad); Eggers Collection (not listed by either Anderson & Anderson 1971 or Schedl 1979c). Synonymy: Michalski 1973a: 63.

References: (tx) Eggers 1941c: 123; Michalski 1973a: 63; Schedl 1948b: 48.

ellipticus Murayama 1958: 929. Holotype, sex?; Onino-oshidashi, Naganohara, Gumma pref., Japan; Murayama Collection in USNM, Washington.

Figures: Nobuchi 1973a: pl. 1.

Distribution: Asia (Japan).

Hosts: *Sorbus commixta*.

References: (ds) Nobuchi 1973a: 20. (tx) Murayama 1958: 929; Nobuchi 1973a: 20, pl. 1.

elongatus Schedl 1972g: 54. Holotype ♀; Brasilien, S. Caraca, S. Barbara, M. Gerais, 1450 m; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1972g: 54, 1979c: 90.

ensifer Eichhoff 1880: 163. Syntypes ♂; Paris, France; Hamburg Museum, lost.

Figures: Balachowsky 1949a: 58 (adult), Michalski 1973a: pl. 4.

Distribution: Asia (E USSR), Europe (Austria/ Bulgaria/ Czechoslovakia/ France/ Greece/ Hungary/ Italy/ Poland/ Romania/ Sicily/ W USSR/ Yugoslavia).

Hosts: *Ulmus* spp., *Prunus* spp., *Zelkova carpinifolia*.

Notes: (3) Michalski 1973a: 33 (named form *tatlyphensis*, no status).

References: (ay) Butovitsch 1929: 30–31; Escherich 1923b: 477. (bv) Grune 1979: 33; Maksimovic 1979a: 285; Meixner 1937: 1214; Michalski 1959c: 167; Prell 1930c: 631. (cn) Brasier 1983: 100; Escherich 1923b: 477; Goidanich & Goidanich 1934; Kholodkovskii 1912: 291; Marcu 1926c: 59; Mokrzecki 1926b: 4; Pfeffer 1979: 148; Rhumbler 1927: 285; Schwerdtfeger 1944a: 172, 1957a: 181; Tübenf 1936: 506; Vajda 1952: 114, 121; Wichmann 1927b: 353, 359. (ce) Balazy 1965a; Balazy & Michalski 1962c; Brasier 1983: 100; Escherich 1935; Graham 1969: 876; Kleine 1908c: 177; Kostenko 1929; Lipa 1968; Lipa & Chmielewski 1977; Maksimovic 1979c: 285; Nosek 1959a: 118, 1959b: 87; Pfeffer 1928b: 2, 1931b: 73, 1943b: 180, 1979: 148; Rafes 1962; Schwerdtfeger 1944a: 172, 1957a: 181; Szczepanski 1961: 5; Wisniewski 1984. (hb) Decaux 1890d: 124–125, 1890e, 1890f; Dombrowsky 1887; Eggers 1906; Eichhoff 1881a: 41, 163; Escherich 1923b: 477; Györfi 1957; Kholodkovskii 1912: 291; Lengerken 1939: 49, 1954: 65; Lindemann 1964: 78–83; Maksimovic 1979a: 285; Maslov 1963a: 80–100, 1963c: 848; Michalski 1959c: 167, 1962a, 1962d: 273–276; Nosek 1959a: 118, 1959b: 87; Pfeffer 1942a: 11; Prell 1930c: 631; Postner 1974: 385; Rafes 1962; Rhumbler 1927: 285; Rimski-Korsakov et al. 1949: 267; Schedl 1981b: 44; Schwerdtfeger 1944a: 172, 1957a: 181, 1981: 187; Spessivtsev 1913a: 29; Stark 1952: 108; Wichmann 1927b: 353, 359. (ds) Aeloque 1896; Balachowsky 1943a, 1944b; Barthe 1896; Bayer 1936a; Bedel 1888b: 388, 406; Butovitsch 1929: 30–31; Csiki 1914; Eggers 1906; Endrodi 1955b; Escherich 1923b: 477, 1932b; Grune 1979: 33; Hagedorn 1910d: 84; Heyden, Reitter, & Weise 1891: 670, 1906: 708; Jacentkovsky 1912: 286, 1935: 19; Kalandra & Pfeffer 1935; Kleine 1913a: 89, 1913b: 151, 1934a: 168; Kostenko 1929; Langhoffer 1915c: 156; Lucht 1987: 275; Luigioni 1929: 990; Marcu 1926c: 59; Michalski 1957a: 73, 1957b: 461, 1960: 233, 1967: 310–311, 1965b: 196, 1973a: 30; Nürnberg 1954: 88, 1960a: 160; Orest 1926c: 59; Pascovici 1962; Pfeffer 1928b: 2, 1930b: 119, 1931b: 73, 1959a: 46; Postner 1974: 385; Reitter 1894a: 44, 1913a: 23, 1916: 272; Rimski-Korsakov et al. 1949: 267; Rohrl 1914: 255; Sainte-Claire & Mequignon 1938: 443; Schanfuss 1915: 1206; Schedl 1967c: 68, 1980a: 1, 1981b: 44; Schwerdtfeger 1951: 187; Semenov 1909: 38; Sokanovskii 1966: 388; Spessivtsev 1913a: 29; Stark 1927b: 86, 1952: 108; Tredl 1907: 7; Wichmann 1927a: 51; Zvierzomb & Zubovsky 1918. (tx) Aeloque 1896; Balachowsky 1943a, 1944b: 8–9, 1949a: 60, 1963a: 1241; Bedel 1888b: 388, 406; Butovitsch 1929: 30–31; Dombrowsky 1887; Eggers 1910f: 557–

558, 1911a: 122, 1913a: 286, 1914: 184–185; Eichhoff 1881a: 41, 163, 1883a: 105, 130; Endrodi 1957a, 1957b; Escherich 1923b: 477; Faivel 1883: 106, 1889; Grune 1979: 33; Hagedorn 1910a: 123; Hoffmann 1939: 36–37; Jacentkovsky 1935: 19; Lucht 1987: 275; Luigioni 1929: 990; Meixner 1937: 1214; Michalski 1957b: 461, 1959c: 169, 1962b: 199, 1973a: 30–33, pl. 4; Nürnberg 1954: 88, 1960: 160; Pfeffer 1932b: 10, 1942a: 11, 1955a: 76, 1965: 61, 1989a: pl. 5; Portevin 1935: 311; Postner 1974: 385; Quaschik 1953: 35; Reitter 1894a: 44, 1913a: 23, 1916: 272; Rey 1892: 30; Rhumbler 1927: 285; Schedl 1934f: 1633, 1948b: 60, 1957: 168, 1967: 68, 1980a: 1, 1981b: 44; Scheyvrew 1893a: 116–118, 1893b: 74–77; Semenov 1904: 38; Sokanovskii 1966: 382, 384, 388; Spessivtsev 1913: 29–30, 1921: 8; Stark 1952: 108. (ms) Escherich 1932b; Rohrl 1914b: 157; Schimitschek 1930b: 407.

esuriens Blandford 1894c: 77. Syntypes ♂; Japan: Jumsai, Miyanoshta, and Chiuzenji; IRSNB, Brussels.

Figures: Michalski 1973a: pl. 18, Nobuchi 1973a: pl. 2, Tsai & Li 1959: 75. Yin, Huan, & Li 1984: 28.

Distribution: Asia (Heilongjiang, Jilin in China/Japan/Sakhalin Island in E USSR).

Hosts: *Ulmus* spp., *Fraxinus mandshurica*.

References: (ay) Butovitsch 1929: 7, 47. (ce) Inouye et al. 1955: 90; Yasumatsu & Watanabe 1965: 70. (hb) Inouye et al. 1955: 90; Stark 1952: 112; Stebbing 1909b: 21; Yin, Huang, & Li 1984: 28. (ds) Blandford 1894c: 77; Butovitsch 1929: 7, 47; Hagedorn 1910d: 84; Kleine 1913b: 151, 1914b: 259, 1934a: 168; Krivolutskaia 1983; Kurenzov 1936b: 350; Michalski 1973a: 64; Murayama 1954b: 155; Nakane et al. 1963: 381; Nobuchi 1973a: 20; Sokanovskii 1966: 383; Stark 1952: 112; Yin, Huang, & Li 1984: 28. (tx) Blandford 1894c: 77; Butovitsch 1929: 7, 47; Eggers 1908e; Hagedorn 1910a: 123; Kurenzov 1941a: 87–88; Michalski 1964: 666–668, 1968a: 111, 1969c: 661, 1973a: 64–68, pl. 18; Murayama 1936: 147, 1954b: 155; Nakane et al. 1963: 381, pl. 191; Niisima 1905: 67–69, 1909: 117, 1943: 142; Nobuchi 1973a: 20, pl. 2; Reitter 1913: 15; Schedl 1934f: 1633, 1948b: 43; Sokanovskii 1954: 14, 1966: 383–384; Stark 1952: 112–114; Stebbing 1909b: 21; Tsai & Li 1959: 75; Tsai, Yin, & Huang 1962: 4, 7; Wichmann 1916: 13; Yin & Huang 1980: 47; Yin, Huang, & Li 1984: 28. (ms) Eggers 1910b.

sachalinensis Michalski 1964: 666. Holotype ♂; Bayukly, prop. Protonaisk, Sakhalin; IZL, Leningrad. Synonymy: Michalski 1969c: 661.

References: (tx) Michalski 1964: 666, 1968a: 111, 1969c: 661; Sokanovskii 1966: 383.

fagi Walsh 1867b: 58. Syntypes 6, sex?; Southern Illinois [USA]; not given.

Distribution: North America (Illinois, Mississippi, Texas in USA).

Hosts: *Fagus grandifolia*, rare in *Celtis occidentalis*, *Quercus nuttallii*.

References: (ay) Butovitsch 1929: 7. (cn) Blackman 1950; Chamberlin 1924; Drooz 1985: 356; Packard 1890: 520, 611; Riley 1880b: 298; Swaine 1918a: 51; Walsh 1867b: 58. (cc) Felt 1906: 722. (hb) Baker, W. L. 1972: 238; Beal & Massey 1945; Blackman 1922b, 1950; Chamberlin 1939: 227; Clittenden 1890; Drooz 1985: 356; Felt 1906: 722; Packard 1890: 520, 611; Pierce 1907: 292; Smith, J. B. 1886: 127; Swaine 1918a: 51. (ds) Atkinson et al. 1991: 157; Beal & Massey 1945; Blackman 1922b: 42, 47, 1950; Blackwelder 1939; Blatchley & Leng 1916: 589; Butovitsch 1929: 7; Chamberlin 1939: 227; Clittenden 1890; Drooz 1985: 356; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 84; Henshaw 1885; Kleine 1913b: 151, 1914b: 399, 1934a: 168; Leng 1920: 337; Smith, J. B. 1886: 127; Swaine 1909: 104; Wood, S. L. 1982b: 427. (tx) Beal & Massey 1945; Blackman 1922b: 42, 47, 1934: 11–12; Blatchley & Leng 1916: 589; Butovitsch 1929: 7; Chamberlin 1939: 227; Hagedorn 1910a: 123; LeConte 1868: 166, 1876: 371–372; Swaine 1909: 104, 1910a: 33, 1918a: 51; Walsh 1867b: 58; Wood, S. L. 1982b: 427.

facialis Schedl 1973d: 164. Holotype ♂; Brasilien, Amazona, Maturaca, alto Rio Canaburi; MZUSP, Sao Paulo.

Distribution: South America (Brazil).

References: (tx) Schedl 1973d: 164, 1979c: 94.

frontalis Blandford 1894d: 79. Holotype ♂; Fukushima, Japan; BMNH, London.

Figures: Michalski 1973a:pl. 35, Nobuchi 1973a:pl. 2. Distribution: Asia (Japan/ Taiwan).

Hosts: *Ulmus campestris* var. *major*.

References: (ay) Butovitsch 1929: 7, 37. (cn) Anonymous 1950a. (hb) Takahashi 1989: 403. (ds) Anonymous 1950g; Blandford 1894c; Butovitsch 1929: 7, 37; Choo & Woo 1983; Hagedorn 1910d: 84; Kleine 1913b: 151, 1914b: 259, 1934a: 168; Michalski 1973a: 107; Murayama 1953a: 4, 1953c: 144, 1954b: 155, 1955: 101; Nakane et al. 1963: 381; Nobuchi 1967: 18, 1973a: 21; Sokanovskii 1966: 388. (tx) Blandford 1894d: 79; Butovitsch 1929: 7, 37; Eggers 1939c: 115; Hagedorn 1910a: 123; Michalski 1969c: 660, 1973a: 107–109, pl. 35; Murayama 1934c: 298, 1943: 97, 1953a: 4, 1954b: 155, 1955: 101; Nakane et al. 1963: 381, pl. 191; Niisima 1905: 70, 1909: 117–119, 1910a: 5; Nobuchi 1973a: 21, pl. 2; Schedl 1934f: 1633, 1948b: 26, 1979c: 100; Sokanovskii 1958: 37, 1966: 388; Stark 1941: 299; Strohmeier 1914: 32. **formosanus** Eggers 1939c: 115. Lectotype ♀;

Formosa; USNM, Washington, designated by Anderson & Anderson 1971: 13. Synonymy: Schedl 1962p: 486.

References: (tx) Anderson, W. H. & Anderson 1971: 13; Eggers 1939c: 15; Schedl 1962p: 486, 1979c: 99.

golbachii Schedl 1951g: 288. Syntypes ♂: Argentinien, Misiones, Pto. Benberg; Schedl Collection in NHMW, Wien and Fundacion Miguel Lillo, Tucuman.

Distribution: South America (Argentina).

Notes: (1) Schedl 1979c: 106 (citation of holotype invalid).

References: (tx) Schedl 1951g: 288, 1979c: 106.

gretschkini Sokanovskii 1956: 42. Holotype ♂; prope Ordjonikidzebad, Tajikistan, USSR; Sokanovskii Collection.

Figures: Greckin 1956:1454, Michalski 1973a:pl. 36.

Distribution: Asia (Tajikistan in E USSR).

Hosts: *Prunus* spp.

References: (cn) Greckin 1956: 1483. (hb) Greckin 1956: 1483; Kulinich 1965: 138–140; Makhnovskii 1966: 92. (ds) Kadyrov 1988: 43–44; Michalski 1973a: 109; Sokanovskii 1956: 42–43, 1958: 37, 1960, 1966: 389. (tx) Greckin 1956: 1484; Michalski 1968a: 113–114, 1968b: 195, 1973a: 109–111, pl. 36; Sokanovskii 1956: 42–43, 1958: 37, 1960, 1966: 389.

hermosus Wood 1968b: 12. Holotype ♂; 18 km N Tlaxco (Tlaxcala), Puebla, Mexico; Wood Collection.

Figures: Bright 1972b: 1490, Wood 1968b: 12.

Distribution: North America (Nuevo Leon, Puebla in Mexico).

Hosts: *Abies religiosa*, *Pseudotsuga menziesii*.

References: (hb) Wood, S. L. 1982b: 437. (ds) Atkinson & Equilma 1988: 100; Wood, S. L. 1982b: 437. (tx) Wood, S. L. 1968a: 12, 1968b: 12, 1982b: 437.

silvaticus Bright 1972b: 1489. Holotype ♂; Cerro Potosi, Nuevo Leon, Mexico, 11,000 ft.; CNCI, Ottawa. Synonymy: Wood 1975a: 22.

References: (tx) Bright 1972b: 1489–1490; McNamara 1977: 199; Wood, S. L. 1975a: 22.

incognitus Eggers 1951: 154. Holotype ♀; Mexico; Eggers Collection, in NHMW, Wien.

Distribution: North America ("Mexico").

References: (ds) Schedl 1972g: 38; Wood, S. L. 1982b: 448. (tx) Eggers 1951: 154; Schedl 1979c: 123; Wood, S. L. 1982b: 448.

intricatus (Ratzeburg) 1837: 186 (*Eccoptogaster*). Syntypes, sex?; Frankreich durch Bayern bis Schweden; not given, possibly in ZIFH, Eberswalde.

Figures: Balachowsky 1949a: 178, Bevan 1987: 115, Michalski 1973a:pl. 37, Sokanovskii 1966: 386.

Distribution: Africa (Morocco/ Tunisia), Asia (Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxembourg/ Netherlands/ Norway/ Poland/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia). Hosts: *Quercus* spp., *Betula* sp., *Carpinus* sp., *Fagus* spp., *Ostrya* sp.

Notes: (3) Schedl 1979c: 119 (cites as synonym *eccoptus* Eggers, nomen nudum).

References: (ay) Butovitsch 1929: 7, 34–35; Chararas & Kontroupas 1977; Courtois et al. 1965; Doganlar 1984; Escherich 1923b: 478, 507; Feytaud 1950a; Gahan 1900; Keler 1920: 134; Lesne 1911a: 627; Negru 1968b: 803; Nunberg 1928a: 140; Nobuchi 1969a: 46; Scholz 1905: 144; Yates, M. G. 1984. (bv) Barr, B. A. 1969: 643; Chararas 1980b: 563; Doganlar & Schopf 1984; Grune 1979: 39; Habermann & Schopf 1987, 1988; Meixner 1937: 1214; Michalski 1959c: 174; Nuorteva 1956c: 94; Prell 1926: 69, 1930c: 642, 1931: 365; Schoneherr 1970b; Yates, M. G. 1984. (cn) Acatay 1943a: 57; Aerts 1921; Anonymous 1935: 500, 1977r; Archer 1866; Barbey 1925: 419; Baryshman 1955; Bellevoye 1896; Browne 1968: 644; Chararas 1972; Chorbadzhievo 1929; Compte Sart & Caminero 1982; Eckstein 1900b, 1926: 573; Edelman & Malysheva 1959a: 368, 1959b; Elton 1947, 1951; Elton & Voute 1950; Escherich 1923b: 478, 507; Esterberg 1959; Feytaud 1946, 1950a; Fisher 1937: 110–128; Gabler 1955; Gehin 1857b: 42; Georgescu et al. 1957: 357, 425; Gibbs 1978b; Goidanich & Goidanich 1934; Cois 1944; Gusev 1928: 144; Gyofai 1959; Hess 1900: 53, 1907: 278; Hess & Beck 1914: 242, 1924: 296; Hoffmann 1934; Hofinger 1922; Judeich & Nitsche 1895: 444, 481; Kamp 1951: 85; Kholodkovskii 1912: 290; Kleine 1932a: 304; Koning 1926: 312–313; Koppen 1882: 250; Kovacevic 1957: 69; Lekander, M. 1951: 22; Lindblom 1936: 26; Lohrenz 1907: 49; Maar & Voore 1935: 641–651; Macedo 1938: 3–7; Marcu 1926c: 59; Muller 1912: 184; Nosek 1951: 109; Nusslin 1913: 232; Nypels 1899: 7; Packard 1890: 860; Picard 1921: 17; Pierce, W. D. 1917: 40; Rhumbler 1922: 274, 1927: 285; Roepke 1931: 162, 1947: 114–116; Saalas 1949: 340, 347; Sakharov 1926; Schimitschek 1944: 153, 1951a: 101, 1955a: 135, 1955c: 73, 1961a: 154; Schwerdtfeger 1944a: 174, 1957a: 181; Sedlaczek 1919: 78–79; Simmel 1928: 154–171; Sinreich 1961: 166; Szontagh 1985; Tragardh 1917: 28; Tsap 1965: 103–107, 1966; Vorontsov 1968; Wachtl 1901: 380; Weber, H. 1926: 573; Wichmann 1927b: 356, 361; Wolff & Krause 1922: 69; Yates, M. G. 1981; Zakharov & Levkovich 1951: 294; Zvierzomb & Zubovskiy 1918. (ce) Adeli 1964; Apel 1983; Arambourg 1964: 115; Balazy et al. 1977; Beaver 1967a: 145; Boucek 1957b: 80; Brammanis 1940; Capek 1986, 1987; Chararas 1957d; Doganlar, Schopf, & Bonbosch 1984; Donisthorpe 1933a; Eisenhauer 1989; Elliot & Morley 1907; Espanol 1967a; Fry 1989: 18; Fuchs 1937, 1938; Gamle 1906: 237; Gauss 1954a: 423; Gibbs 1978b; Gillanders 1906; Graham 1969: 877; Guseynov 1981; Gyofai 1941b, 1943: 84, 1952b; Heqvist 1963; Hirschmann & Wisniewski 1982, 1983; Jammicky 1957b: 20, 1957c; Johnson, M. A. & Croteau 1987; Keilezowski 1976; Keilezowski,

Moser, & Wisniewski 1983; Keilezowski & Wisniewski 1978, 1983; Kleine 1905c: 177, 1909a: 42; Kolubajiv 1954: 22; Kostenko 1929; Lloyd 1944: 180; Majewski & Wisniewski 1978a: 10; Mankovska 1987; Michalski & Ratajczak 1989; Nosek 1951: 109, 1959a: 118, 1959b: 85; Nunberg 1930: 204; Nuorteva 1957b: 68; Nusslin 1927: 285; Nypels 1899: 7; Otten 1940: 197; Perris 1856a: 244; Pettersen 1976b; Pfeffer 1923a: 329, 1928b: 2, 1943b: 179; Poinar 1975: 167; Prell 1926: 69; Ratzeburg 1869: 176; Rondani 1873: 162; Ruhm 1955c: 176, 1956b: 3; Rummukainen 1954: 27; Saalas 1930: 118, 1949: 340, 347; Schimitschek 1941a: 313, 1955a: 135; Schwerdtfeger 1944a: 174, 1957a: 181; Sedlaczek 1935a: 162; Sitowski 1930: 2; Stefanov 1949a: 97, 106; Thompson, W. R. 1943: 105; Tudor 1969: 34; Vietinghoff 1924: 336; Wahl 1926; Wichmann 1958: 233; Yates, M. G. 1981, 1984. (hb) Acatay 1943a: 57; Adeli 1964, 1972: 14; Aerts 1921; Altum 1881c: 248; Apel 1983; Audonin 1837; Balachowsky & Mesnil 1935; Barbey 1901: 16, 38, 1913, 1925: 419, 1942; Bargmann 1906; Beffa 1949, 1961; Boas 1923: 343; Bonnemaïson 1953; Brandt 1948, 1960: 136; Browne 1968: 644; Budge 1949; Bukowsky 1930; C. 1928; Cecconi 1924; Chapman 1869c: 126–131; Chararas 1972; Chittenden 1890; Chorbadzhievo 1929; Dallimore & Munro 1922; Decaux 1890e, 1890f; Doganlar & Schopf 1984; Dombrowsky 1887, 1892; Eckstein 1889, 1897, 1898a: 182–188, 1926: 573; Edelman & Malysheva 1959b; Eichhoff 1881a: 41, 155, 1882c: 705; Escherich 1923b: 478, 507; Everts 1903: 741; Feytaud 1946, 1950a; Fisher 1936a; Furst 1888: 626; Gabler 1955; Gahan 1900; Gibbs 1978b; Gillanders 1906, 1908; Cois 1944; Gyofai 1957; Habermann & Schopf 1987; Henschel 1876a: 207, 242, 1895a: 155; Hess 1900: 53, 1907: 278; Hess & Beck 1914: 242, 1927: 296; Holmgren 1867: 139; Jacobi 1906: 145; Joly 1950; Judeich & Nitsche 1895: 444, 481; Kamp 1951a; Karpinski & Strawinski 1948: 153; Kholodkovskii 1912: 290; Kirby, S. G. & Fairhurst 1982; Kleine 1932a: 304; Kleinert 1980: 68; Knotek 1894a: 553, 1897: 142, 1898b: 320; Koning 1926: 312; Kostin 1960: 130; Lengerken 1939: 50, 1954: 69; Lindemann 1881b: 171–173; Lohrenz 1907: 49; Loxovoi 1960: 15; Lunardoni & Leonardi 1889: 453; Madon 1930: 99; Masutti 1964; Michalski 1959c: 174; Munro 1926: 46; Nordlinger 1856: 42; Nosek 1959a: 118, 1959b: 85; Nuorteva 1956c: 94; Nusslin 1913: 232, 1927: 285; Packard 1890: 860; Palm 1959: 346; Pena 1928: 155; Perris 1856a: 244; Pfeffer 1889a: 51; Postner 1974: 386; Prell 1926: 62–76, 1930c: 642, 1931: 365; Ratzeburg 1837: 186, 1839: 228; Rhumbler 1922: 274, 1927: 285; Rimski-Korsakov et al. 1949: 272; Roepke 1947: 114; Rupertsberger 1879: 231, 1880: 228; Saalas 1913a: 69, 75, 1949: 340, 347; Samal 1928: 140; Schedl 1981b: 41; Schimitschek 1944: 153, 1955a: 135; Schwap-

- pach et al. 1929: 185; Schwerdtfeger 1944a: 174, 1957a: 181, 1981: 188; Sedlacek 1935a: 162; Seiff 1927: 34; Simmel 1928: 154–155; Smith, J. B. 1886: 127; Spessivtsev 1913a: 43; Stark 1926a: 331, 1927a: 18, 1952: 131; Stefanov 1949a: 97, 106; Taschenberg 1880: 240, 244; Tragardh 1914: 85, 1939b: 155, 165; Tredl 1915a: 153; Tschorbadjiev 1929: 155; Vitomskii 1925a: 182; Wachtl 1901: 380; Weber, H. 1926: 573; Wichmann 1927b: 356, 361; Wolff & Krausse 1922: 69; Yates, M. C. 1984: (ds) Acloque 1896; Adeli 1964, 1972; Ammann & Knabl 1923; Andersch 1851; Anderson, R. F. 1960: 235; Anonymous 1977r; Andouin 1837; Andras & Schaefer 1957; Baer 1926: 176–178; Balachowsky 1935: 22, 1944b; Barthe 1896; Bau 1888; Bedel 1888b: 388, 406; Beffa 1949; Bejer-Petersen & Jorum 1977: 6; Benick 1921; Bielz 1887; Blanchere & Robert 1889; Boas 1923: 343; Borchert 1951; Brakman 1966a, 1966b: 203; Brancsik 1906; Browne 1968: 644; Buck 1955: 191, 1952; Bucking 1932; Bukowsky 1930; Buresh & Lazarov 1956; Butovitsch 1929: 7, 34–35; Calwer 1884, 1893; Carpentier & Delaby 1908; Chapman 1870b; Chappell 1867: 216; Chapuis 1869: 60, 1873: 268; Chapuis & Candeze 1853; Chittenden 1890; Chorbadzhievo 1924d, 1929; Chrystal 1937; Croteh 1863; Crowson 1971: 51, 1987; Crowson & Hunter 1964: 200; Dallimore & Munro 1922: 189–193; Debatisse 1945; Duffy 1945: 175; Eder 1934; Eggers 1904; Elton 1947, 1951; Elton & Voute 1950; Endrodi 1958b, 1986: 217; Ericson & Sandin 1893; Ermisch 1953; Escherich 1923b: 478, 507, 1932b; Esterberg 1928, 1959; Everts 1922: 637, 1925; Eyquem 1891; Fedorov 1930; Fisher 1936a; Forster 1849: 440, 1891; Fricken 1889: 283; Fuss 1874; Gabler 1949b; Gaubil 1849: 127; Gemminger & Harold 1872: 2695; Gillerfors 1966; Gozis 1875: 80; Grill 1895: 312; Grune 1979: 39; Györfi 1941b; Hagedorn 1910d: 84; Hansen, V. 1939, 1956, 1964: 456; Heinemann 1908a; Hellen 1947; Hennig 1954: 265; Henschel 1895a: 155; Heyden 1876: 295; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 708; Hicken 1963; Hoffmann 1934; Holmgren 1867: 139; Horion 1951; Jansson 1954: 259; Jazentkovsky 1912: 286; Judeich & Nitsche 1895: 444, 481; Kaltenbach 1874: 624, 646; Karpinski 1925: 215, 1926: 81, 1931: 21; Karpinski & Strawinski 1948: 153; Keler 1922b: 210, 1925b: 270; Kempers 1902: 67; Kersten 1933: 72; Klefbeck & Sjöberg 1960; Kleine 1912a: 262, 267, 1913a: 34, 1913b: 151, 1914a: 19, 1932a: 304, 1934a: 168; Knotek 1892a: 35, 1894a: 553, 1898b: 320; Koltze 1901: 152; Kolubajiv 1934: 65; Koppen 1882: 250; Koschitsky 1900: 83; Kostenko 1929; Kovacevic 1957: 69; Kraatz 1869: 59; Kurir 1947c: 21; Lacordaire 1866: 387; Langhoffer 1915e: 156; Leclercq 1971; Lentz 1857: 140; Lindeman 1964: 112; Lindemann 1884b: 264; Lokaj 1868: 63; Lomnicki 1886a: 241, 1913b: 147; Lucht 1987: 275; Luigioni 1929: 990; Lunardoni & Leonardi 1859: 453; Lundberg 1951: 151; Lundblad 1950b: 72; Marcu 1926c: 59; Matthews & Fowler 1883: 42; Meinert 1887: 70; Michalski 1973a: 111; Minkevici 1867: 299–304; Munro 1928: 285; Negru 1966b: 398, 1968a: 454, 1968c: 91; Nunnberg 1928b: 87, 1954: 92; Orest 1926c: 59; Palm 1959: 28, 212; Perris 1876a: 254, 1877a: 414; Pfeffer 1928b: 2, 1931b: 73, 1989a: 51; Pierce, W. 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B. 1886: 127; Stark 1926a: 331, 1926f: 82–84, 101, 1926j: 124, 1927b: 86, 1941: 301, 1952: 131; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 436; Sturm 1843: 229; Thomson 1865: 375, 1868: 224; Tragardh 1914: 85, 1939b: 155, 165; Tredl 1907: 6; Tschorbadjiev 1929: 155; Ulanowski 1884: 6; Welch, R. C. 1980: 271; Westhoff 1882: 238; Wichmann 1924: 15, 1927a: 50–51; Winter, T. G. 1983: 49. (tx) Acatay 1943: 56–57; Acloque 1896; Altman 1844; Apel 1883; Bach 1854; Balachowsky 1935: 22, 1944b: 21–22, 1949a: 77; Barbey 1901: 16, 38; Barbier & Menier 1875: 118; Bedel 1888b: 388, 406; Beffa 1949, 1961; Bertolini 1872; Boas 1923: 343; Butovitsch 1929: 7, 34–35; Carpentier & Delaby 1908; Ceballos 1945; Chapuis 1869: 60, 1873: 268; Chapuis & Candeze 1853; Chevrolat 1835; Choo, Woo, & Nobuchi 1988b; Chorbadzhievo 1924d; Cieslar 1894; Claus 1958; Csiki 1906; Desbrochers 1891; Dombrowsky 1857, 1892; Duffy 1953; Eggers 1923b: 133–134, 1929c: 42, 1942c: 34; Eichhoff 1864b: 32, 1881a: 41, 155–157, 1883a: 105, 130; Endrodi 1957b: 420; Erichson 1836: 59; Escherich 1923b: 478, 507; Escherich & Escherich 1897; Everts 1903: 741, 1922: 637; Ferrant 1911; Formanek 1907: 10; Fricken 1889: 283; Gabler 1949b, 1955; Gillanders 1908; Grune 1979: 38–39; Gyllenhal 1813: 348–349; Hagedorn 1910a: 123; Hansen, V. 1956, 1964: 456; Henry 1892: 10; Henschel 1876a: 207, 242, 1895a: 155; Iablukoff-Khnzorian 1961: 85; Jacobi 1906: 145; Judeich & Nitsche 1895: 444, 481; Kalina 1970: 129; Karpinski & Strawinski 1948: 153; Knotek 1892a: 35, 1892b: 235, 1894b: 87; Kuhn 1913: 1048; Lacordaire 1866: 387; Letzner

1844: 65, 1891: 372; Lennis 1886: 183; Lindemann 1881b: 171; Lovendal 1889b: 48, 1898: 62; Lucht 1987: 275; Luigioni 1929: 990; Lunardoni & Leonardi 1889: 453; Meixner 1937: 1214; Michalski 1959c: 174, 1967: 315, 1973a: 111–113, pl. 37; Negrn 1966b: 398; Nobuchi 1973a: 14; Nordlinger 1848: 253, 1856: 42; Nunberg 1928a: 140, 1954: 92; Perris 1877a: 414; Pfeffer 1932b: 10, 1944: 130–131, 1955a: 89, 1989a: pl. 1; Postner 1974: 386; Quaschik 1953: 35; Ratzeburg 1837: 186, 1839: 228; Redtenbacher 1849: 792, 1849b: 27, 1858: 838, 1874: 373; Reitter 1894a: 42, 1908b: 23, 1913a: 21–22, 1916: 272; Rey 1892b: 30; Rhumbler 1922: 274, 1927: 285; Rupertsberger 1879: 231, 1880: 228; Saalas 1913a: 69, 75, 1949: 340, 347; Schedl 1934f: 1633, 1948b: 24–25, 1952f: 86, 1964a: 94, 96, 1967c: 68, 1980a: 1, 1981b: 41; Scheyvrew 1893a: 118–119, 1893b: 77–80; Schimitschek 1955c: 73; Seidlitz 1891a: 557, 1891b: 602; Semenov 1902: 267; Sokanovskii 1954: 14; Spessivtsev 1913a: 43, 1922a: 458, 491, 1925a: 153, 1931: 11, 19; Stark 1941: 306, 1950: 229, 1952: 131; Stephens 1830: 362; Stierlin 1898: 436; Stresemann et al. 1889: 353; Taschenberg 1880: 240, 244; Thomson 1865: 375, 1868: 224. (ms) Cieslar 1894; Doganlar 1984; Eckstein 1927; Escherich 1932b; Heinemann 1908a; Knotek 1894b: 187; Macedo 1938: 4; Merino-Rodriguez 1966: 48; Ritter 1929: 553; Schwappach 1924: 56; Stark 1958: 231; Vorontzov 1968.

picicolor Stephens 1830: 362. Syntypes 1 ♂, 2 ♀; Wittersham near Rye, England; BMNH, London. Synonymy: Michalski 1973a: 111.

Notes: (3) Although this is the senior available name, *intricatus* is retained because of its long-standing, widely accepted use.

References: (ds) Stephens 1830: 362. (tx) Butovitsch 1929: 7; Michalski 1973a: 111; Schedl 1948b: 24; Stephens 1829b: 12, 1830: 362.

penicillatus Reitter 1913a: 21. Holotype ♂; Beih Marocco; NHMB, Budapest. Synonymy: Balachowsky 1949a: 77.

References: (ay) Butovitsch 1929: 9, 37. (ds) Butovitsch 1929: 9, 37; Sokanovskii 1966: 388. (tx) Balachowsky 1949a: 77; Butovitsch 1929: 9, 37; Endrodi 1957: 420; Reitter 1913a: 21; Schedl 1934f: 1633, 1948b: 24; Sokanovskii 1966: 388.

simmeli Eggers 1923b: 133 (*Eccoptyogaster*). Syntypes, sex?; Pakalehne am Schneeberg (Innerkrain); Eggers Collection, in NHMW, Wien. Synonymy: Balachowsky 1949a: 77.

Notes: (3) Schedl 1979c: 230 (citation of holotype invalid).

References: (ay) Butovitsch 1929: 7, 27. (hb) Simmel 1928: 156–171. (ds) Butovitsch 1929: 7, 27; Sokanovskii 1966: 388. (tx) Balachowsky 1949a: 77; Butovitsch 1929: 7, 27; Eggers 1923b: 133–134; Schedl 1934f: 1633, 1948b: 24, 1979c: 230; Sokanovskii 1966: 388.

lenkoranus Eggers 1942c: 34. Holotype, sex?; Lenkoran, Azerbaijan, USSR; Eggers Collection, not found. Although no cotypes were designated, Schedl 1979c: 138 reports 2 cotypes in NHMW, Wien. Synonymy: Balachowsky 1949a: 77.

References: (hb) Stark 1952: 132. (ds) Sokanovskii 1966: 388; Stark 1952: 132. (tx) Balachowsky 1949a: 77; Eggers 1942c: 34; Endrodi 1957: 420; Pfeffer 1944a: 131; Schedl 1948b: 24, 1979c: 138; Sokanovskii 1954: 14, 1966: 388; Stark 1952: 132. (ms) Pfeffer 1944a: 131. *tiburtinus* Claus 1958: 712. Type, a piece of *Quercus* wood with engravings; Germany: Thuringen, Muhlhausen; not located. Synonymy: Schedl 1963g: 46 (genus and species uncertain, based on gallery).

References: (tx) Claus 1958: 712; Schedl 1963g: 46

jacobsoni (Spessivtsev) 1919: 246 (*Eccoptyogaster*). Lectotype, sex?; Vladivostock, USSR; IZL, Leningrad, designated by Michalski 1968b: 189.

Figures: Michalski 1968a: 110, 1973a: pl. 19, Nobuchi 1973a: pl. 2, Tsai & Li 1959: 75.

Distribution: Asia (Heilongjiang, Liaoning in China/ Japan/ E USSR).

Hosts: *Ulmus lacinata*, *U. propinqua*, *U. japonica*, *Carpinus betulus*, *Pyrus ussuriensis*.

Notes: (3) Kurenzov 1935a: 22 (describes form *montana*, no status in nomenclature).

References: (ay) Butovitsch 1929: 7, 49. (cn) Kurenzov 1935c: 189; Pfeffer 1979: 149. (ce) Krovolsheina 1974; Kurenzov 1934a: 57, 1964: 19; Pfeffer 1979: 149. (hb) Kurenzov 1935a: 19, 22, 1948b: 118; Stark 1952: 115; Yin, Huang, & Li 1984: 30. (ds) Butovitsch 1929: 7, 49; Kleine 1934a: 168; Krivolutsкая 1958: 108, 112–113, 1983; Krivolutsкая & Kupyanskaya 1970; Kurenzov 1934a: 57, 1935a: 19, 22, 1935c: 189, 1936a: 110, 1936b: 350, 1938a: 60, 1964: 19, 1965, 1967; Michalski 1973a: 68; Nobuchi 1973a: 22; Sokanovskii 1966: 381; Stark 1952: 115; Yin, Huang, & Li 1984: 30. (tx) Butovitsch 1929: 7, 49; Krivolutsкая 1958: 112; Kurenzov 1941a: 91–92, 1948b: 118; Michalski 1968a: 109–110, 1968b: 189, 1973a: 68–70, pl. 19; Nobuchi 1973a: 22, pl. 2; Schedl 1934f: 1633, 1941a: 42, 1948b: 39; Sokanovskii 1966: 381–385; Spessivtsev 1919: 246–247; Stark 1952: 115–116; Tsai & Li 1959: 75; Tsai, Yin, & Huang 1962: 4, 7; Yin & Huang 1980: 48; Yin, Huang, & Li 1984: 30. *rimsii* Kurenzov 1941a: 103. Lectotype ♀;

Ussuriisk, Primorye, USSR; Gornotayozhnaya Stanciya AN SSR, designated by Krivolutsкая 1985: 4. Synonymy: Krivolutsкая 1985: 4.

Notes: (3) Michalski 1973a: 119 (treated as a synonym of *mali*).

References: (ce) Krivolutsкая 1984: 3. (ds) Krivolutsкая 1984: 3; Sokanovskii 1966: 389. (tx) Krivolutsкая 1984: 3, 1985: 4; Kurenzov

1941a: 103; Michalski 1973a: 119; Schedl 1947c: 63, 1948b: 29; Sokanovskii 1966: 359; Stark 1952: 144.

japonicus Chapuis 1875: 199. Holotype ♂; Kiushiu, Japan; IRSNB, Brussels.

Figures: Krivolutskaia 1984: 5, Michalski 1973a: pl. 38, 41, Yin, Huang, & Li 1984: 39.

Distribution: Asia (Hebei, Heilongjiang, Jilin, Liaoning, Neimeng, Shanxi, Sichuan in China/ Japan/ Korea/ E USSR).

Hosts: *Ulmus* spp., *Prunus* spp., *Pyrus* spp., *Fraxinus* spp., *Malus pumila*, *Acer mono*.

Notes: (3) Stark 1935: 24 (*fraxini*, nomen nudum, synonymy by Michalski 1973a: 122).

References: (ay) Butovitsch 1929: 58. (cn) Anonymous 1980g; Clausen 1931; Kurenzov 1935c: 192; Pfeffer 1979: 149; Shiraki 1952. (ec) Inouye et al. 1955: 92; Pfeffer 1979: 149; Yang 1989. (hb) Inouye et al. 1955: 92; Kurenzov 1935a: 22; Lindeman 1961: 100, 1978; Stark 1952: 143; Yin, Huang, & Li 1984: 38. (ds) Anonymous 1980g; Blandford 1894c; Butovitsch 1929: 58; Cho 1957; Choo 1983: 39; Choo & Woo 1985: 163; Choo, Woo, & Nobuchi 1983: 172, 1988a: 133; Clausen 1931; Hagedorn 1910d: 84; Kleine 1913b: 151, 1914b: 259, 1934a: 168; Ko 1969: 283; Krivolutskaia 1983; Krivolutskaia & Kupyanskaya 1970; Ku 1964; Kurenzov 1935a: 22, 1935c: 192, 1936a: 110, 1936b: 350; Michalski 1973a: 113; Murayama 1929b: 2, 1930b: 6, 1936b: 116, 1937b: 375, 1942a: 53, 1950b: 1290, 1954b: 155; Nakane et al. 1963: 381; Nobuchi 1973a: 22; Shiraki 1952; Sokanovskii 1960, 1966: 390; Stark 1935: 24, 1952: 143; Yanovskii & Tegshzhargal 1985: 404; Yin, Huang, & Li 1984: 38. (tx) Blandford 1894d: 80; Butovitsch 1929: 58; Chapuis 1875: 199; Choo 1983: 39; Eggers 1942c: 33; Hagedorn 1910a: 123; Michalski 1968b: 196–197, 1973a: 113–116, pl. 38; Murayama 1930b: 6, 10–11, 1937b: 375, 1950b: 1290, 1954b: 155; Nakane et al. 1963: 381, pl. 191; Niisima 1905: 67, 72–73, 1909: 121; Nobuchi 1973a: 22, pl. 2; Schedl 1934f: 1632, 1948b: 19; Sokanovskii 1954: 15, 1958: 37, 1960: 676, 1966: 386, 390; Stark 1935: 24, 1950: 229, 1952: 143; Tsai, Yin, & Huang 1962: 2–5, 12, 14; Yin & Huang 1980: 48. (ms) Mastumura 1931.

confusus Eggers 1922c: 13 (*Eccoptogaster*). Lectotype ♀; Wladivostok, USSR; USNM, Washington, designated by Anderson & Anderson 1971: 10. Synonymy: Krivolutskaia 1985: 6.

References: (ay) Butovitsch 1929: 6. (cn) Kurenzov 1935c: 189. (ec) Krivolutskaia 1984: 4; Kurenzov 1934a: 57. (hb) Kurenzov 1935a: 19, 1948b: 117; Stark 1952: 141; Yin, Huang, & Li 1984: 41. (ds) Butovitsch 1929: 6; Kleine 1934a: 168; Krivolutskaia 1983, 1984: 4; Kurenzov 1935a: 19, 1935c: 189, 1936a: 110, 1936b: 350, 1938a: 58; Michalski 1973a: 102;

Stark 1952: 141; Yin, Huang, & Li 1984: 41. (tx) Anderson, W. H. & Anderson 1971: 10; Butovitsch 1929: 6; Eggers 1922c: 13–14, 1941c: 123–124; Krivolutskaia 1985: 4–6; Kurenzov 1941a: 75, 101–103, 225–226, 1948b: 117; Michalski 1968b: 196, 1973a: 102–104, pl. 33; Schedl 1934f: 1632, 1948b: 21, 1979c: 62; Sokanovskii 1954: 15, 1966: 390; Stark 1952: 141–143; Tsai, Yin, & Huang 1962: 3; Yin, Huang, & Li 1984: 41.

mandli Eggers 1922c: 13 (*Eccoptogaster*). Holotype ♂; Werchne-Udinsk in Transbaikalien [= Ulan-Ude, Zabaikalye, USSR]; USNM, Washington. Synonymy: Krivolutskaia 1985: 6.

References: (ay) Butovitsch 1929: 8, 47. (hb) Kurenzov 1935a: 19, 24; Stark 1952: 125. (ds) Butovitsch 1929: 8, 47; Kurenzov 1935a: 19, 24, 1936a: 109, 1938a: 58; Mandl 1931: 25; Michalski 1973a: 122; Sokanovskii 1966: 390; Stark 1936c: 142, 1952: 125. (tx) Anderson, W. H. & Anderson 1971: 19; Butovitsch 1929: 8, 47; Eggers 1922c: 13–14, 1942c: 28; Krivolutskaia 1985: 6; Kurenzov 1941a: 89–90; Michalski 1968b: 197, 1973a: 122–123, pl. 41; Schedl 1934f: 1633, 1948b: 20; Sokanovskii 1955: 37, 1960: 676, 1966: 390; Stark 1936: 142, 154, 1950: 229, 1952: 125–126.

ussuriensis Kurenzov 1941a: 102. Lectotype ♀; initio fluvii Suputinka, South-Ussuriiskii Territory (Michalski 1973a: 102); IZL, Leningrad, designated by Michalski 1968b: 196. Synonymy: Michalski 1968b: 196, 1973a: 102.

References: (hb) Stark 1952: 144. (ds) Nobuchi 1973a: 23; Stark 1952: 144. (tx) Kurenzov 1941a: 102–103, 226; Michalski 1968a: 133, 1968b: 196, 1973a: 102; Nobuchi 1973a: 24, pl. 2; Schedl 1948b: 23; Stark 1952: 144.

subconfusus Eggers 1941c: 123. Syntypes 1 ♂, 2 ♀; Suchan (Primorye, USSR), Cicikar (north-east China); Eggers Collection, not mentioned by Anderson & Anderson 1971 or Schedl 1979c. Synonymy: Michalski 1973a: 102.

References: (tx) Eggers 1941c: 123; Michalski 1973a: 103; Schedl 1948b: 24; Sokanovskii 1954: 15.

starki Kurenzov 1941a: 101–102, 225. Lectotype ♀; initio fluvii Suputinka, South-Ussuriiskii Territory, USSR; IZL, Leningrad, designated by Michalski 1973a: 102. Synonymy: Michalski 1973a: 102.

References: (hb) Stark 1952: 142. (ds) Krivolutskaia & Kupyanskaya 1970; Stark 1952: 142. (tx) Kurenzov 1941a: 101–102, 225; Michalski 1968a: 113, 1968b: 196, 1973a: 102; Schedl 1948b: 22; Stark 1952: 142; Sokanovskii 1954: 15.

jaroschewskii Scheyvrew 1893: 90. Neotype ♂; Tbilisi, Georgia, USSR; IZL, Leningrad, designated by Michalski 1968b: 187, automatic.

Figures: Michalski 1973a:pl. 5, Sinadsky 1961: 1022.

Distribution: Europe (W USSR).

Hosts: *Eleagnus* sp., *Ulmus carpinifolia*.

References: (ay) Butovitsch 1929: 7, 24. (hb) Kostin 1960: 130; Sinadsky 1961. (ds) Arnoldi et al. 1955: 653; Butovitsch 1929: 7, 24; Hagedorn 1910d: 84; Heyden, Reitter, & Weise 1906: 708; Kadyrov 1985: 43, 1989; Kleine 1913b: 151; Kulimich 1965: 140; Lozovoi 1960: 9; Michalski 1973a: 34; Mitiaev 1960: 124; Schaufuss 1915: 1206; Semenov 1904: 38; Sokanovskii 1960, 1966: 383; Yagdyev 1984. (tx) Butovitsch 1929: 7, 24; Eggers 1914a: 38, 1914b: 185–186; Hagedorn 1910a: 123; Michalski 1968b: 186–188, 1973a: 34–36, pl. 5; Pfeffer 1965: 61; Reitter 1913a: 18–19; Schedl 1934f: 1632, 1948b: 57; Schevyrew 1890: 98–99, 1893: 90–91, 125, 1904: 38; Semenov 1904: 37–38; Sinadsky 1961: 1022; Sokanovskii 1954: 15, 1956: 44, 1958: 37, 1960: 674, 1961: 483–485; 1966: 383; Stark 1952: 86.

unispinosus Schevyrew 1890c: 98. Neotype ♂; Tbilisi, Georgia, USSR; IZL, Leningrad, preoccupied by LeConte 1876. Synonymy: Schedl 1948b: 57.

References: (cn) Kholodkovskii 1912: 288. (hb) Kholodkovskii 1912: 288. (ds) Butovitsch 1929: 10, 49; Kleine 1913b: 152; Schevyrew 1890c: 470; Semenov 1904: 37; Sokanovskii 1966: 383. (tx) Reitter 1913a: 23; Schedl 1934f: 1632, 1948b: 57; Schevyrew 1890c: 470; Semenov 1904: 37; Sokanovskii 1966: 383.

grandiflor Reitter 1913a: 18–19. Syntypes, sex?; Transcaucasus: Elisabethopol [= Kirowabad], USSR; NHMB, Budapest. Synonymy: Arnoldi et al. 1955: 653.

References: (ay) Butovitsch 1929: 7, 24. (hb) Stark 1952: 146. (ds) Arnoldi et al. 1955: 653; Butovitsch 1929: 7, 24; Kleine 1913a: 168; Sokanovskii 1966: 383; Stark 1952: 146. (tx) Arnoldi et al. 1955: 653; Butovitsch 1929: 7, 24; Eggers 1914: 38; Reitter 1913a: 18–19; Schedl 1934f: 1632, 1948b: 57; Sokanovskii 1954: 13, 1960: 764, 1966: 383; Stark 1952: 146.

tauricus Eggers 1914: 185 (*Eccoptogaster*). Lectotype ♀; Krim (Sebastopol); USNM, Washington, designated by Anderson & Anderson 1971: 34. Synonymy: Michalski 1973: 34.

References: (ay) Butovitsch 1929: 10, 31, 33. (hb) Stark 1952: 109. (ds) Butovitsch 1929: 10, 31, 33; Kleine 1913a: 89, 1934a: 169; Pjatinitskii 1930a: 163; Schaufuss 1915: 1206; Stark 1927b: 86, 1952: 109. (tx) Anderson, W. H. & Anderson 1971: 34; Balachowsky 1949a: 81; Butovitsch 1929: 10, 31, 33; Eggers 1914: 185–186, 1922d: 114; Michalski 1973a: 34; Schedl 1934f: 1633, 1948b: 30; Sokanovskii 1954: 14; Stark 1952: 109.

kostini Sokanovskii 1954: 15. Holotype ♂; Russia:

Ili River in Kazakhstan; Sokanovskii Collection. Synonymy: Michalski 1973a: 34.

Notes: (3) Sokanovskii 1958: 37 (described var. *rufostriatus*, no status in nomenclature).

References: (tx) Michalski 1968a: 107, 1973a: 34; Sokanovskii 1954: 15, 1958: 37.

kashmirensis Schedl 1958g: 168. Lectotype ♂; Kashmir, Pahlgam, 7000 ft., Lidar Valley; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 131.

Distribution: Asia (Kashmir in India).

Hosts: *Ulmus wallichiana*.

Notes: (3) Syntypes supposedly were deposited in the FRI, Dehra Dun, but all specimens sent to Schedl are accounted for and none were returned to the FRI.

References: (cn) Mathur & Singh 1961: 64. (ds) Beeson 1961: 296; Mathur & Singh 1961: 64. (tx) Schedl 1958g: 168, 1979c: 131.

kirschi Skalitzky 1876: 110. Syntypes, sex?; Prague, Czechoslovakia; not located.

Figures: Balachowsky 1949a: 58 (adult), Michalski 1973a:pl. 6.

Distribution: Asia (Iraq/ Turkey), Europe (Austria/ Bulgaria/ Czechoslovakia/ France/ Germany/ Italy/ Poland/ Sicily/ Spain/ Yugoslavia/ W USSR). Hosts: *Ulmus* spp., *Prunus* spp., *Fraxinus excelsior*, *Populus alba*.

Notes: (3) Sokanovskii 1954: 14 (describes var. *ruguloides*).

References: (ay) Butovitsch 1929: 7, 28–29; Escherich 1923b: 477, 496. (bv) Andrianova & Makhmadziev 1972b; Grune 1979: 33; Makhmadziev 197b; Maksimovic 1979a: 285; Michalski 1959c: 167. (cn) Andrianova & Makhmadziev 1972a, 1972b; Baeta Neves 1952c: 4–8; Brasier 1983: 100; Chararas 1972; Chorbadzhievo 1929; Escherich 1923b: 477, 496; Goidanich & Goidanich 1934; Halperin 1986; Pajares & Arevalo 1987; Kailidis 1969a; Kholodkovskii 1912: 291; Lokaj 1906: 21; Lozovoi 1948c: 364, 1960: 13; Packard 1890: 860; Pfeffer 1979: 148; Rhumbler 1927: 285; Schwerdtfeger 1944a: 172, 1957a: 181; Stefan 1961; Tübenf 1936: 506; Vajda 1952: 114; Wachtl 1901: 381. (cc) Andrianova & Makhmadziev 1972b, 1980; Brasier 1983: 100; Cooreman 1963: 46; Escherich 1935; Fry 1989: 18; Halperin 1986; Halperin & Holzschuh 1984: 23; Kailidis 1969a; Kleine 1908c: 177; Kopyl 1983; Kostenko 1929; Lozovoi 1948c: 364; Maksimovic 1979a: 285; Nosek 1959a: 118, 1959b: 87; Novak 1952: 411; Pfeffer 1931b: 73, 1943b: 180, 1979: 148; Schwerdtfeger 1944a: 172, 1957a: 181; Sedlacek 1935a: 162; Semedo 1961: 119; Webber & Gibbs 1989. (hb) Andrianova & Makhmadziev 1972a, 1972b; Chittenden 1890; Chorbadzhievo 1929; Dombrowsky 1887, 1892; Eggers 1906; Eichhoff 1881a: 41, 159; Escherich 1923b: 477, 496; Györfi 1957; Halperin & Holzschuh 1984:

- 23; Henschel 1895a: 156; Karpinski & Strawinski 1948: 153; Kholodkovskii 1912: 291; Kostin 1960: 130; Lengerken 1939: 49, 1954: 65; Lindeman 1964: 78–82, 1978; Makhmadziev & Shukronaev 1983; Makhnovskii 1966: 92–93; Maksimovic 1979a: 285; Marcu 1941: 401; Maslov 1963c: 847, 1964: 80–100; Michalski 1959c: 167; Nosok 1959a: 118, 1959b: 87; Packard 1890: 860; Postner 1974: 384; Rhumbler 1927: 285; Rudnev & Stepanova 1960: 773–777, 1961; Schedl 1981b: 44; Schwerdtfeger 1944a: 172, 1957a: 181, 1981: 187; Sedlacek 1935a: 162; Semedo 1961: 119; Shatilov 1985; Smith, J. B. 1886: 127; Spessivtsev 1913a: 32; Stark 1926a: 331, 1952: 99; Tschorbadjiev 1929: 159; Wachtl 1901: 381. (**ds**) Baeta Neves 1952a; Balachowsky 1943a, 1944b; Buresh & Lazarov 1956; Butovitsch 1929: 7, 28–29; Calwer 1893; Chittenden 1890; Chorbadzhievo 1929: Covassi 1983; Eggers 1906; Endrodi 1958b; Escherich 1923b: 477, 496, 1932b; Grune 1979: 33; Hagedorn 1910d: 85; Halperin 1986; Halperin & Holzschuh 1984: 23; Henschel 1895a: 156; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 708; Horion 1951; Jacentkovsky 1935: 22; Jazentkovsky 1912: 286; Kadyrov 1988: 42–43, 1989; Kalandra & Pfeffer 1935; Karaman 1967; Karpinski 1948a: 173; Karpinski & Strawinski 1948: 153; Kleine 1912a: 305, 1913a: 34, 89, 1913b: 151, 1934a: 168; Kostenko 1929; Langhoffer 1915c: 156; Lomnicki 1913b: 147; Lucht 1987: 275; Michalski 1973a: 36; Negru 1957: 129, 1968a: 453; Negru & Rosca 1967: 141; Novak, P. 1952: 411, 1964; Numberg 1928b: 87, 1954: 89; Pascovici 1962; Pfeffer 1930b: 119, 1931b: 73, 1936: 90, 1989a: 46; Pittioni 1943: 174; Postner 1974: 384; Reitter 1894a: 43, 1916: 272; Roubal 1935b: 72, 1941: 255; Sainte-Claire & Mequignon 1938: 443; Schaufuss 1915: 1206; Schedl 1971d: 426, 1980a: 2, 1981b: 44; Scheyrew 1890c: 470; Schilsky 1909: 187; Schnaider 1936: 366; Schwerdtfeger 1981: 187; Seidlitz 1891a: 557; Semedo 1961: 119; Shiperovich 1926: 472–475; Smith, J. B. 1886: 127; Sokanovskii 1966: 387; Stark 1926a: 331, 1926g: 153, 1927b: 86, 1952: 99; Stein & Weise 1877: 164; Stierlin 1898: 436; Tredl 1907: 6; Tschorbadjiev 1929: 159; Wichmann 1927a: 51–52; Zviere-zomb & Zubosky 1918. (**tx**) Balachowsky 1943a, 1944b: 8–9, 1949a: 61–63; Butovitsch 1929: 7, 28–29; Desbrochers 1891; Dombrowsky 1887, 1892; Eggers 1912a: 148, 1914: 184–185, 1922d: 116–117, 1942c: 34; Eichhoff 1881a: 41, 159, 1883a: 105, 130; Endrodi 1957a: 307, 1957b: 420; Escherich 1923b: 477, 496; Formanek 1907: 10; Grune 1979: 32–33; Hagedorn 1910a: 123; Henschel 1895a: 156; Jacentkovsky 1935: 22; Karpinski & Strawinski 1948: 153; Kuhnt 1913: 1049; Lucht 1987: 275; Michalski 1959c: 160–173, 1962a: 54, 1962b: 199, 1967: 310, 1973a: 36–39, pl. 6; Numberg 1954: 89; Pfeffer 1932b: 11, 1955a: 76–77, 1965: 61, 1989a: pl. 5; Postner 1974: 384; Quaschik 1953: 35; Reitter 1894a: 43, 1913a: 26, 1916: 272; Rhumbler 1927: 285; Schedl 1934f: 1632, 1948b: 51, 1980a: 2, 1981b: 44; Scheyrew 1893a: 69–74, 1893b: 114–116; Schmidt, C. 1980: 26; Seidlitz 1891a: 557, 1891b: 603; Semedo 1961: 119; Skalitzky 1876: 110; Sokanovskii 1954: 14, 1966: 384, 387–388; Spessivtsev 1913a: 32–33, 1931: 9–10; Stark 1926a: 331, 1952: 99–100, 107–108; Stierlin 1898: 436; Tsai & Li 1959: 75. (**ms**) Escherich 1932b; Schimitschek 1930b: 407. *fasciatus* Reitter 1890c: 395. Holotype, sex?; Arexthal bei Ordubad [= Ordubad (Araks) Nakhichevan, USSR]; NHMB, Budapest. Synonymy: Schedl 1948b: 51. Notes: (3) Michalski 1973a: 36 (treated as a variety of *kirschi*, not as a geographical race). References: (**ay**) Butovitsch 1929: 22–30. (**cn**) Gentry, J. W. 1965: 90; Greckin 1956: 1486; Plotnikov 1914; Yagdyev 1979. (**hb**) Greckin 1956: 1486; Janjua 1950; Kostin 1960: 130; Stark 1952: 107. (**ds**) Butovitsch 1929: 22–30; Gentry, J. W. 1965: 90; Hagedorn 1910d: 84; Heyden, Reitter, & Weise 1891: 670, 1906: 708; Kadyrov 1988: 43, 1989; Kleine 1934a: 168; Kobakhidze 1957: 178; Schaufuss 1915: 1206; Sokanovskii 1966: 387; Stark 1952: 107. (**tx**) Butovitsch 1929: 22–30; Desbrochers 1891; Eggers 1912a: 48, 1914: 185; Hagedorn 1910a: 123; Iablukoff-Khinzorian 1961: 70; Michalski 1973a: 36; Reitter 1890c: 395, 1913a: 25; Schedl 1934f: 1632, 1948b: 51; Sokanovskii 1954: 14, 1966: 387; Stark 1952: 107; Wichmann 1915b: 215. *demaison* Eggers 1912a: 47 (*Eccoptyogaster*). Syn-types ♂; Sicilia, Algeria, Hispania; Eggers (USNM, Washington or NHMW, Wien?), Demaison Collection and Leonard Collection. Synonymy: Schedl 1948b: 51, Balachowsky 1949a: 61. References: (**ay**) Butovitsch 1929: 7, 31, 33. (**ec**) Escherich 1935. (**ds**) Butovitsch 1929: 7, 31, 33; Kleine 1913b: 151, 1914a: 16; Luigioni 1929: 990; Normand 1949: 104; Pfeffer 1947d: 126; Ragusa 1922: 128, 1924: 114; Schaufuss 1915: 1206; Semedo 1961: 119; Sokanovskii 1966: 387. (**tx**) Butovitsch 1929: 7, 31, 33; Balachowsky 1949a: 61; Eggers 1912a: 47, 1914: 184–185; Endrodi 1957: 420; Luigioni 1929: 990; Kalandra & Pfeffer 1935; Reitter 1913a: 26; Schedl 1934f: 1633, 1948b: 51, 1979c: 77; Sokanovskii 1966: 387. *koenigi* Scheyrew 1890: 99. Syntypes, sex?; Kopet-Dagh, Turkmenia, USSR; not located. Figures: Balachowsky 1949a: 80 (adult), Michalski 1973a: pl. 39. Distribution: Africa (Algeria/ Morocco), Europe (Austria/ Bulgaria/ France/ Hungary/ Italy/ Romania/ Sicily/ W USSR/ Yugoslavia). Hosts: *Acer* spp.

Notes: (3) Originally named as a variety of *dauricus*.

References: (**ay**) Butovitsch 1929: 7–8, 35–36. (**bv**) Grune 1979: 39. (**cn**) Zakharov & Levkovich 1951: 299. (**ce**) Otten 1940: 197; Tudor 1969: 34. (**hb**) Budkov 1897; Dejoz 1960: 510; Pfeffer 1989a: 49; Postner 1974: 387; Schedl 1981b: 42; Schwerdtfeger 1981: 188; Stark 1952: 129. (**ds**) Budkov 1897; Butovitsch 1929: 7–8, 35–36; Dejoz 1960: 510; Grune 1979: 39; Hagedorn 1910d: 85; Heyden 1898: 76; Horion 1935, 1951; Kadyrov 1989; Kleine 1913b: 151, 1914b: 246, 1934a: 168; Knotek 1892: 235–236; Lozovoi 1960: 14; Lucht 1987: 275; Luigioni 1929: 990; Michalski 1973a: 116; Pfeffer 1936: 90, 1959a: 49; Pjatsnitskii 1930a: 96, 163, 1950a: 2; Postner 1974: 387; Ragusa 1924: 114; Reitter 1894a: 42; Rudnev 1929: 517–519; Schaefer 1959: 235; Schedl 1964j: 96, 1950a: 2, 1981b: 42; Sokanovskii 1966: 389; Stark 1952: 129; Yanovskii & Tegshzhargal 1985: 415. (**tx**) Balachowsky 1948: 35, 1949a: 82; Butovitsch 1929: 7–8, 35–36; Eggers 1908e: 193, 1910e: 35, 1913a: 285–286, 1914: 298, 1922d: 116–118, 1927d: 122–123; Grune 1979: 38–39; Hagedorn 1910a: 123; Lucht 1987: 275; Luigioni 1929: 990; Michalski 1968a: 111, 122, 1968b: 191, 1969c: 659, 1973a: 116–117, pl. 39; Pfeffer 1955a: 82; Postner 1974: 387; Reitter 1894a: 42, 1913a: 21–24; Schedl 1934f: 1633, 1948b: 35, 1962q: 486, 1964a: 96, 1980a: 2, 1981b: 42; Scheyrew 1890: 99; Semenov 1902: 266–267, 1903: 80; Sokanovskii 1929: 212, 1930: 803, 1954: 14, 1966: 386, 389; Spessivtsev 1931: 16–17; Stark 1941: 299–301, 1952: 129–130.

aceris Knotek 1892b: 235. Syntypes ♂ ♀; Bosnia, Herzegovina; Austria inferior; Sarajevo Museum. Synonymy: Eggers 1927d: 122.

References: (**ay**) Escherich 1923b: 476, 516. (**cn**) Chorbadzhievo 1929; Escherich 1923b: 478, 516; Pierce, W. D. 1917: 148; Schimitschek 1955a: 139; Schwerdtfeger 1944a: 175, 1957a: 182; Wachtl 1901: 381. (**ce**) Chararas 1957d; Kleine 1908c: 177, 1944: 78; Meyer 1934: 612; Schimitschek 1955a: 139; Schwerdtfeger 1944a: 175, 1957a: 182; Thompson, W. R. 1943: 105. (**hb**) Chorbadzhievo 1929; Escherich 1923b: 478, 516; Fuchs 1904a; Györfi 1957; Keller 1913: 242; Knotek 1894a: 553, 1897: 141, 1898b: 318; Lengerken 1939: 50, 1954: 69; Lepiney & Mimeur 1932: 44; Peyerimhoff 1919: 247; Rudnev 1929: 517–519; Schimitschek 1955a: 139; Schwerdtfeger 1944a: 175, 1957a: 182; Spessivtsev 1913a: 42; Wachtl 1901: 381. (**ds**) Balachowsky 1944b; Buresh & Lazarov 1956; Butovitsch 1929: 6–7; Chorbadzhievo 1924d, 1929; Escherich 1923b: 478, 516; Fuchs 1904a; Hagedorn 1910d: 83; Heyden, Reitter, & Weise 1906: 708; Kleine 1913a: 34, 1913b: 151; Knotek 1892a: 35, 1894a: 553, 1898b: 818; Kurir 1947c: 28; Lepiney & Mimeur 1932: 44; Peyerimhoff 1919: 247; Pierce, W. D. 1917: 148; Reitter 1894a: 42, 1916:

272, 349; Schilsky 1909: 187; Sokanovskii 1966: 389; Tredl 1907: 6; Tschorbadzhiev 1929: 155. (**tx**) Balachowsky 1944b, 1949a: 82; Chorbadzhievo 1924d; Cieslar 1894; Csiki 1906; Eggers 1908e, 1927d: 122; Escherich 1923b: 478, 516; Hagedorn 1910a: 123; Knotek 1892a: 35, 1892b: 235, 1894b: 87; Reitter 1894a: 42, 1913a: 21, 1916: 272, 349; Schedl 1934f: 1633, 1948b: 35; Semenov 1902: 268; Sokanovskii 1966: 389; Spessivtsev 1913a: 42. (**ms**) Cieslar 1894; Knotek 1894b: 87.

siculus Eggers 1908: 193 (reprint p. 1). Holotype ♀; Siciliae insulae nontibus Maldoniensibus; Ragusa Collection, not located. Synonymy: Eggers 1922d: 117.

References: (**hb**) Cecconi 1924. (**ds**) Kleine 1913b: 152; Schaufuss 1915: 1206; Sokanovskii 1966: 389. (**tx**) Balachowsky 1949a: 32; Butovitsch 1929: 7; Eggers 1908: 193, 1911: 193, 1913a: 286, 1922d: 117–118, 1927: 122; Hagedorn 1910a: 124; Peyerimhoff 1919: 248; Schedl 1934f: 1633; Sokanovskii 1966: 389.

koltzei Reitter 1894d: 128. Holotype ♂; Chingan (Amur), USSR; NHMB, Budapest.

Figures: Michalski 1973a: pl. 7.

Distribution: Asia ("Manchuria") [Heilongjiang?] in China/ Primorye in E USSR).

Hosts: *Tilia amurensis*, *T. mandshurica*.

References: (**ay**) Butovitsch 1929: 8, 47. (**hb**) Budkov 1897; Kurenzov 1948b: 125; Stark 1952: 123. (**ds**) Budkov 1897; Butovitsch 1929: 8, 47; Hagedorn 1910d: 85; Heyden 1898: 76; Kleine 1913b: 151, 1914b: 250; Krivolutsкая 1983; Kurenzov 1965; Michalski 1973a: 39; Reitter 1894a: 41; Sokanovskii 1966: 381; Stark 1952: 123. (**tx**) Butovitsch 1929: 8, 47; Eggers 1912a: 48, 1912c: 205, 1913a: 284–286; Hagedorn 1910a: 123; Kurenzov 1941a: 88–89, 105, 1948b: 125; Michalski 1969c: 660, 1973a: 39–41, pl. 7; Reitter 1894a: 4, 1894d: 128, 1913a: 19; Schedl 1934f: 1633, 1941a: 42, 1948b: 17; Sokanovskii 1954: 14, 1958: 37, 1966: 381–388; Stark 1936: 154, 1952: 123.

vexator Reitter 1913a: 23. Holotype ♀; East Siberia: Amur; NHMB, Budapest. Synonymy: Schedl 1948b: 17.

References: (**ay**) Butovitsch 1929: 10, 47. (**ce**) Kurenzov 1934a: 57. (**hb**) Kurenzov 1935a: 24. (**ds**) Butovitsch 1929: 10, 47; Kurenzov 1934a: 57, 1935a: 24. (**tx**) Butovitsch 1929: 47; Eggers 1913a: 285; Reitter 1913a: 23; Schedl 1934f: 1633, 1948b: 17.

kozikoieskii Michalski 1964: 663. Holotype ♂; prope Lugansk, Derkulscoe Forestry, Ukrain, USSR; IZL, Leningrad.

Figures: Michalski 1973a: pl. 7.

Distribution: Asia (Ukraine in W USSR).

Hosts: *Ulmus laevis*.

References: (**ds**) Michalski 1973a: 41; Sokanovskii 1966: 388. (**tx**) Michalski 1964: 663, 1968a: 109,

1968b: 188–189, 1973a: 41–43, pl. 8; Sokanovskii 1966: 358.

laetus Wood 1975a: 25. Holotype ♂; 48 km N Rosamorada, Nayarit, Mexico; Wood Collection. Distribution: North America (Nayarit in Mexico). Hosts: *Inga paterno*.

References: (hb) Kirkendall 1984: 235; Wood, S. L. 1982b: 450. (ds) Wood, S. L. 1982b: 450. (tx) Wood, S. L. 1975a: 25, 1982b: 450.

laevis Chapuis 1869: 54. Syntypes 4, sex²; Pyrenees, Bavaria, Steiermark (Austria); IRSNB, Brussels. Figures: Balachowsky 1949: 75 (adult), Michalski 1973a: pl. 20, Pfeffer 1989a: pl. 5, Sokanovskii 1966: 356.

Distribution: Asia (E USSR), Europe (Austria/ Bulgaria/ Czechoslovakia/ Denmark/ France/ Germany/ Greece/ Hungary/ Norway/ Poland/ Spain/ Sweden/ W USSR/ Yugoslavia).

Hosts: *Ulmus* spp., *Acer* sp., *Alnus* sp., *Corylus* sp., *Fagus* sp., *Malus* sp., *Quercus* sp., *Tilia* sp.

Notes: (3) Butovitsch 1929: 44 (described var. *pomacearum*, no status in nomenclature, synonymy by Schedl 1948b: 36).

References: (ay) Anderbrant, O. & Schlyter 1987a; Butovitsch 1929: 8, 44–45; Escherich 1923b: 439, 478, 494; Negru 1968b: 802; Nusslin 1911a: 58, 129, 337; Scholz 1905: 144. (bv) Anderbrant, O. & Schlyter 1987b; Barr, B. A. 1969: 643; Grune 1979: 37; Kirby, S. G. & Fairhurst 1983; Maksimovic 1979a: 255; Michalski 1959c: 170; Prell 1926: 69; Wichmann 1967. (cn) Atkins, O'Callaghan, & Kirby 1981; Austara et al. 1983; Bejer-Petersen 1978; Bevan 1987: 121; Chorbazhiev 1929; Eckstein 1926: 577; Edelman & Malysheva 1959a, 1959b; Ehnstrom 1985; Eidmann & Klingstrom 1976: 236; Escherich 1923b: 439, 478, 494; Esterberg 1959; Falek 1916: 164; Fransen 1933: 39; Fystro 1960; Gabler 1955; Harding & Ravn 1982: 478; Hess & Beck 1914: 239, 1927: 295; Kaiser 1931; Leach 1940b: 227; Lekander 1951a: 73, 1954b: 7; Lekander et al. 1951: 3; Lustner et al. 1935: 81; Mathiesen 1950: 74; Nosek 1951: 106, 1952b: 98; Pfeffer 1979: 148; Pierce, W. D. 1917: 96; Readio 1935: 344; Rhumbler 1927: 285; Roll-Hansen 1963: 69; Schimitschek 1927: 279, 1951a: 101, 1955a: 155, 1955c: 73; Schwerdtfeger 1944a: 172, 1957a: 181; Tubenif 1936: 500; Vajda 1952: 114; Wachtl 1901: 350; Yde-Anderson 1982; Zakharov & Levkovich 1951: 300. (ce) Anderbrant, O. & Schlyter 1987b; Androic 1966: 46; Apel 1983; Atkins, O'Callaghan, & Kirby 1981; Balazy 1965a; Bejer-Petersen 1978; Cooreman 1963: 46; Crowson 1981a; Escherich 1925a, 1935; Fleischer 1911; Fransen 1933: 39, 1937b; Gabler 1947b; Harding & Ravn 1982: 478; Heqvist 1963; Hirschmann 1960; Hirschmann & Wisniewski 1952, 1953; Jannicky 1957b: 20, 1957c; Kirby, S. G. & Fairhurst 1983; Kleine 1908c: 177, 1909a: 42; Leach

1940b: 227; Lindeman 1964: 78–82, 112; Maksimovic 1979a: 255; Nosek 1951: 106, 1952b: 87, 98, 1959a: 118; Pettersen 1976b; Pfeffer 1931b: 7, 74, 1943b: 179, 1979: 145; Prell 1926: 69; Rummikainen 1954: 24; Schimitschek 1930a: 258, 1955a: 155, 1964e; Schlyter et al. 1987; Schwerdtfeger 1944a: 172, 1957a: 181; Sedlacek 1935a: 162; Sellnik 1931: 155; Vitzthum 1923: 110, 1926: 408; Webber & Gibbs 1989; Westerboer 1963: 254; Wichmann 1967; Yde-Andersen 1978, 1982, 1983a, 1983b. (hb) Apel 1983; Bevan 1987: 121; Bukowsky 1930; C. 1928; Chorbazhiev 1929; Czech 1887; Dombrowsky 1887, 1892; Eckstein 1897, 1926: 577; Edelman & Malysheva 1959b; Eichhoff 1881a: 40, 152; Eidmann & Klingstrom 1976: 236; Escherich 1923b: 439, 478, 494; Falek 1916: 164; Fisher 1931; Fuchs 1904a; Gabler 1955; Györfi 1957; Harding & Ryan 1982: 478; Henschel 1895a: 156; Hess & Beck 1914: 239, 1927: 295; Kalandra & Pfeffer 1935; Karpinski & Strawinski 1948: 153; Keller 1913: 242; Kemner 1919: 171–176; Kirby, S. G. & Fairhurst 1982, 1983; Knotek 1894a: 553, 1897: 137, 1898b: 315; Lekander 1954b: 7; Maksimovic 1979a: 255; Marcu 1941: 401; Michalski 1959c: 170; Nosek 1959a: 118, 1959b: 87; Numberg 1929c: 113; Palm 1958: 347; Parihar & Hayes 1987; Pfeffer 1942a: 10, 1989a: 47; Postner 1974: 383; Rhumbler 1927: 285; Rimski-Korsakov et al. 1949: 272; Samal 1928: 141; Schedl 1981b: 42; Schimitschek 1930a: 288, 1955a: 155; Schwerdtfeger 1944a: 172, 1957a: 181, 1981: 187; Sedlacek 1935a: 162; Simmel 1919a: 34–36; Spessivtsev 1913a: 35; Stark 1926a: 331, 1952: 120; Tragardh 1939b: 165; Tschorbazhiev 1929: 154; Wachtl 1901: 350; Wichmann 1909a: 147–149, 164–165. (ds) Allen, A. A. 1985; Androic 1966: 46; Atkins, O'Callaghan, & Kirby 1981; Audras & Schaefer 1957; Balachowsky 1944b; Bangsholt 1975: 95; Barthe 1896; Bejer-Petersen 1978; Bejer-Petersen & Jørum 1977: 3; Brakman 1966b: 203; Bukowsky 1930; Buresh & Lazarov 1956; Butovitsch 1929: 8, 44–45; Calwer 1884, 1893; Chapuis 1869: 54, 1873: 262; Chorbazhiev 1929; Csiki 1914; Dzambazivili 1961a: 751–757, 1961b: 1253–1254; Endrodi 1958b, 1986: 217; Escherich 1923b: 439, 478, 494, 1932b; Esterberg 1959; Fuchs 1904a, 1905a; Gabler 1949b; Gemminger & Harold 1872: 2695; Gozis 1875: 80; Grill 1895: 312; Grune 1979: 37; Hagedorn 1910d: 85; Hansen, V. 1939, 1956, 1964: 456; Hellen 1947; Henschel 1895a: 156; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 708; Horion 1951; Jacentkovsky 1935: 22; Karpinski 1948b: 225; Karpinski & Strawinski 1948: 153; Kemner 1919: 171–176; Klefbeck & Sjöberg 1960; Kleine 1912a: 263, 267, 1913a: 34, 1913b: 151, 1934a: 169; Knotek 1892a: 35, 1894a: 553–555, 1898b: 315; Kozikowsky & Kuntze 1925: 18; Kurir 1947c: 24; Langhoffer 1915c: 156; Linder 1953: 71; Lucht 1987: 275; Luigioni 1929: 990; Lundgren

1988; Michalski 1973a: 70; Negrn 1966b, 1968a: 45-4; Nunberg 1928b: 87, 91, 99-100, 195-4: 89; Palm 1959: 28; Pascovici 1962; Pfeffer 1924b: 472, 1931b: 7, 74, 1935: 159, 1936: 89, 1989a: 47; Pierce, W. D. 1917: 96; Pittioni 1943: 176; Postner 1974: 383; Prossen 1913: 81; Reitter 1894a: 41, 1916: 270; Rimski-Korsakov et al. 1949: 272; Roubal 1908: 12-13, 1913: 146, 1941: 256; Sainte-Claire & Mequignon 1938: 443; Schaufuss 1915: 1204; Schedl 1948b: 36, 1981b: 42; Schilsky 1909: 186; Schimitschek 1937: 43, 1951a: 101; Schwerdtfeger 1981: 187; Stark 1926a: 331, 1926j: 123, 1952: 120; Stein & Weise 1877: 164; Stroh-meyer 1912c: 250; Tragardh 1939b: 165; Tredl 1907: 6; Tschorbadjev 1929: 154; Wichmann 1927a: 49; Winter, T. C. 1983: 46; Yde-Andersen 1978; Zinovjev 1955: 186, 191. (tx) Apel 1983; Balachowsky 1944b: 18-19, 1949a: 74-75; Butovitsch 1929: 8, 44-45; Chapuis 1869: 54, 1873: 262; Csiki 1906; Dombrowsky 1887, 1892; Eggers 1908: 12-13, 1912c: 202-203, 1913a: 286; Eichhoff 1881a: 40, 152, 1883a: 105, 129; Endrodi 1957a: 307, 1957b: 419; Escherich 1923b: 439, 478, 494; Formanek 1907: 9; Gabler 1949b, 1955; Grune 1979: 37; Hagedorn 1910a: 123; Hansen, V. 1956, 1964: 456; Henschel 1895a: 156; Iablokoff-Khnzorian 1961: 85; Jacentkovsky 1935: 22; Karpinski & Strawinski 1948: 153; Knotek 1892a: 35; Lovendal 1889b: 46, 1898: 58; Lucht 1987: 275; Luigioni 1929: 990; Lundgren 1988; Michalski 1959a: 171-174, 1962a: 53, 1962b: 202, 1967: 313, 1973a: 70-73, pl. 20; Negrn 1966b; Nunberg 1929c: 113-116, 1954: 89, 99-100; Nusslin 1911a: 337, 58, 129; Pfeffer 1932b: 10, 1942a: 10, 1955: 87, 1989a: pl. 5; Portevin 1935: 309; Postner 1974: 383; Quaschik 1953: 35; Reitter 1894a: 40-41, 1913a: 17, 1916: 270; Rey 1892b: 30; Rhumbler 1927: 285; Schedl 1934f: 1633, 1948b: 36, 1980a: 2, 1981b: 42; Scheyrew 1893: 77; Schimitschek 1955c: 73; Sokanovskii 1966: 385-386; Spessivtsev 1913a: 35, 1921a: 316-326, 1922a: 456, 1925a: 152, 1931: 14-15; Stark 1952: 120-121. (ms) Escherich 1932b.

loevendali Eggers 1912c: 203 (*Eccoptyogaster*).

Syntypes ♂ ♀; Dyrehaven, Hadsund, Denmark; UZMC, Copenhagen. Synonymy: Balachowsky 1949a: 74.

References: (hb) Kemner 1919: 170-176; Nunberg 1929c: 113. (ds) Kleine 1913b: 151, 1934a: 169; Pfeffer 1935: 159. (tx) Balachowsky 1949a: 74; Eggers 1912c: 203-204; Endrodi 1957: 410; Nunberg 1929c: 113; Reitter 1913a: 17; Schedl 1934f: 1633, 1948b: 36.

laricis Blackman 1934: 24. Holotype ♂; Moscow, Idaho [USA]; USNM, Washington.

Figures: Edson 1967: 41 (adult), 56 (galleries).

Distribution: North America (British Columbia in Canada/Idaho, E Montana, Oregon, Washington in USA).

Hosts: *Larix occidentalis*, *L. lyalli*.

References: (ay) Schmitz, R. F. & Furniss 1968. (cn) Doane et al. 1936; Keen 1938: 129, 1952c: 167; Tunnock 1966: 22. (cc) Keen 1938: 129; Marsh 1979: 150; Schedl 1958d: 187. (hb) Bright 1976d: 36; Chamberlin 1939: 232, 1958: 49; Doane et al. 1936; Edson 1967: 11; Keen 1938: 129, 1952c: 157. (ds) Blackwelder 1939; Bright 1976d: 36; Chamberlin 1939: 232, 1958: 49; Edson 1967: 11; Eshbjerg & Bejer-Petersen 1979; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 403; Gast et al. 1989: 385; Keen 1938: 129, 1952c: 167; Patterson & Hatch 1945: 149; Schultz & Furniss 1968: 1626; Wood, S. L. 1972a: 397, 1982b: 433. (tx) Blackman 1934: 24-25; Bright 1976d: 36; Chamberlin 1939: 232, 1958: 49; Edson 1967: 11, 41; Wood, S. L. 1972a: 397, 1982b: 433.

major Stebbing 1903a: 203. Syntypes 2 ♂; syntypes labeled Konian, Chakrata, U. P., published as North-West Himalaya; FRI, Dehra Dun.

Distribution: Asia (Himachal Pradesh, Kashmir, Punjab, Uttar Pradesh in India).

Hosts: *Cedrus deodara*, rare in *Pinus excelsa*.

References: (ay) Butovitsch 1929: 8; Gardner 1934b: 1-17. (cn) Beeson 1918: 114-124; Browne 1968: 644; Chatterjee 1917b: 1-4; Pierce, W. D. 1917: 52; Stebbing 1903a: 203, 1914: 568; Thapa & Pratap 1986. (ec) Beeson 1922c: 498; Khan 1975; Stebbing 1914: 568; Thapa & Pratap 1986; Thompson, W. R. 1943: 105. (hb) Beeson 1914: 1-5, 1918: 114-124, 1922c: 498; Browne 1968: 644; Stebbing 1903a: 203, 1909b: 21, 1911a: 5, 1914: 568; Thapa & Pratap 1986. (ds) Beeson 1922c: 498, 1961: 296; Browne 1968: 644; Butovitsch 1929: 8; Hagedorn 1910d: 85; Kleine 1913b: 151, 1914b: 270, 1934a: 169; Pierce, W. D. 1917: 52; Peyerimhoff 1933b: 392; Schedl 1974a: 85; Stebbing 1903a: 203. (tx) Butovitsch 1929: 8; Gardner 1934b; Hagedorn 1910a: 123; Schedl 1958g: 166; Stebbing 1903: 203, 1909a: 9, 1909b: 21, 1911a: 10, 1914: 568; Thapa & Pratap 1986.

minor Stebbing 1903a: 207, 1909b: 22. Holotype ♂; type labeled Kainthali, Chamba, published as North-West Himalaya, India; FRI, Dehra Dun. Synonymy: Beeson 1941 (1961: 296).

References: (ay) Butovitsch 1929: 8. (cn) Pierce, W. D. 1917: 52; Stebbing 1903a: 207, 1914: 577. (cc) Beeson 1922c: 498; Stebbing 1914: 577. (hb) Beeson 1922c: 498; Stebbing 1903a: 207, 1908a: 104, 1909b: 22, 1911a: 5, 1914: 577. (ds) Beeson 1922c: 498; Butovitsch 1929: 8; Hagedorn 1910d: 85; Kleine 1913b: 151, 1914b: 270; Peyerimhoff 1933b: 392; Pierce, W. D. 1917: 52; Stebbing 1903a: 207. (tx) Beeson 1941 (1961: 296); Butovitsch 1929: 8; Hagedorn 1910a: 123; Stebbing 1903a: 207, 1909b: 22, 1911a: 18, 1914: 577.

deodara Stebbing 1903a: 220. Syntypes, sex?;

India: N. W. Himalayas: Simla Hill States Divisions: Jamsar, Punjab: Chamba Division Simla: Cheog Forest; not at FRI, Dehra Dun, lost? Synonymy: Beeson 1941 (1961: 296).

References: (ay) Butovitsch 1929: 7. (cn) Beeson 1915: 1–5; Chatterjee 1917b: 1–4; Pierce, W. D. 1917: 52; Stebbing 1903a: 220. (cc) Beeson 1922c: 498. (hb) Beeson 1922c: 498; Stebbing 1903a: 220, 1908a: 108, 1909b: 23, 1911a: 5. (ds) Beeson 1922c: 498; Butovitsch 1929: 7; Hagedorn 1910d: 84; Kleine 1913b: 151, 1914b: 270, 277; Peyerimhoff 1933b: 392; Pierce, W. D. 1917: 52; Stebbing 1903a: 220. (tx) Beeson 1941 (1961: 296); Butovitsch 1929: 7; Hagedorn 1910a: 123; Stebbing 1903a: 220, 1909b: 23, 1909c, 1910: 37, 1914: 363–365.

mali (Bechstein) 1805: 882 (*Bostrichus*). Syntypes, sex?; Meiningen (?), Germany; not located.

Figures: Balachowsky 1963a: 1269, Michalski 1973a: pl. 40, Pfeffer 1959a: pl. 5, Sokanovich 1966: 384. Distribution: Africa (Algeria/ Egypt/ Morocco), Asia (Turkey/ E USSR), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Ireland/ Italy/ Luxembourg/ Netherlands/ Norway/ Poland/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), North America (introduced into: Ontario, Quebec in E Canada/ Maryland, New Jersey, New York, Ohio in USA). Hosts: *Malus* spp., *Prunus* sp., *Pyrus* sp., *Cotoneaster* sp., *Crataegus* spp., *Sorbus* spp., *Ulmus* spp.

Notes: (3) Reitter 1913a: 19 (described aberration *strigilatus*, no status in nomenclature).

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- sulcatus* LeConte 1868: 167. Holotype ♀; New York [USA]; MCZ, Cambridge. Synonymy: Brown 1950: 203. Notes: (3) Blackman 1934: 12 (redescribed). References: (**ay**) Butovitsch 1929: 9. (**cn**) Blackman 1950; Britton 1933: 390; Collins 1940: 130–139, 1941: 370; Friend 1942a: 466; MacNay & Creelman 1958: 13; Martin 1936: 300; Pechuman 1943: 119; Pomerleau 1946: 13; Smucker 1942: 441–442; Wallace 1942: 540–541; Wallace & Beard 1942: 86–87. (**ec**) Buchanan 1940b: 250–251; Bushing 1965: 467; Smucker 1942: 441; Westerhoer 1963: 391. (**hb**) Blackman 1950; Buchanan 1940b: 250–251; Chamberlin 1939: 227; Pechuman 1938: 537. (**ds**) Anonymous 1926c: 515; Blackman 1950; Blackwelder 1939; Blatchley & Leng 1916: 590; Butovitsch 1929: 9; Chamberlin 1939: 227; Dietrich 1936b: 217; Gemminger & Harold 1872: 2696; Hagedorn 1910d: 89; Henshaw 1882: 269, 1885; Hoffmann 1942: 12; Kaston 1938: 240; Kleine 1913b: 152; Leng 1920: 337; Leonard 1928: 515; MacNay 1949: 72; MacNay & Creelman 1958: 13; Pechuman 1937: 13; Swaine 1909: 107, 1910a: 33. (**tx**) Blackman 1934: 12–13; Blatchley & Leng 1916: 590; Brown, W. J. 1950: 203; Butovitsch 1929: 9; Chamberlin 1939: 227; Hagedorn 1910a: 124; LeConte 1868: 167, 1976: 371, 373; Muesebeck 1950: 137; Pechuman 1938: 537–543; Swaine 1909: 107, 1910a: 33, 1918a: 52.
- nitidulus* Chapuis 1869: 59. Holotype ♀; France meridionale; IRSNB, Brussels. Synonymy: Hagedorn 1910d: 85, Schedl 1948b: 27. References: (**ds**) Calwers 1884, 1893; Gemminger & Harold 1872: 2695; Gozis 1875: 80; Heyden, Reitter, & Weise 1883: 181; Semenov 1904: 38. (**tx**) Balachowsky 1949a: 76; Chapuis 1869: 59, 1873: 267; Eggers 1942d: 280–281; Hagedorn 1910d: 85; Schedl 1934f: 1633, 1948b: 27; Semenov 1904: 38.
- bicallosus* Eggers 1933: 75. Holotype ♂; Sagvar, Ungarn; USNM, Washington. Synonymy: Eggers 1942d: 283. References: (**ec**) Schimitschek 1964. (**tx**) Anderson, W. H. & Anderson 1971: 6; Balachowsky 1949a: 77; Eggers 1933: 75, 1941: 124, 1942d: 280, 283; Endrodi 1957: 420; Schedl 1947c: 62, 1948b: 27; Sokanovskii 1954: 14.
- marginatus* Chapuis 1869: 56. Holotype ♀; Yucatan, Mexico; IRSNB, Brussels. Distribution: North America (Guatemala/ Yucatan in Mexico), South America (Venezuela). References: (**ds**) Blackwelder 1947: 788; Blandford 1896c: 121–122; Butovitsch 1929: 8; Ferrer 1942; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 85; Kleine 1913b: 151, 1914b: 353, 365; Wood, S. L. 1982b: 449. (**tx**) Blandford 1896c: 121–122; Butovitsch 1929: 8; Chapuis 1869: 56, 1873: 56; Eggers 1933b: 1; Hagedorn 1910a: 123; Schedl 1937h: 155, 163, 1940a: 329; Wood, S. L. 1982b: 449.
- productus* Hagedorn 1905: 547. Holotype ♂; San Esteban, Venezuela; MNHN, Paris. Synonymy: Eggers 1933b: 1. References: (**ay**) Butovitsch 1929: 9. (**ds**) Butovitsch 1929: 9; Hagedorn 1910d: 85; Kleine 1913b: 152, 1914b: 340. (**tx**) Butovitsch 1929: 9; Eggers 1933b: 1; Hagedorn 1905: 547, 1910a: 123.

monticolae (Swaine) 1917: 32 (*Eccoptyogaster*).
Lectotype ♀; Arrowhead, British Columbia
[Canada]; CNCI, Ottawa, designated by Bright
1967b: 674.

Figures: Edson 1967: 46 (adult), 57 (galleries).

Distribution: North America (British Columbia in
Canada/ W Montana, Washington in USA).

Hosts: *Pseudotsuga menziesii*, rare in *Pinus
monticola*.

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et al. 1936; Essig 1926: 512, 1958: 512; Hatch
1938: 193; Keen 1952c: 158; Swaine 1918a: 53.
(ec) Bedard 1933a; Chamberlin 1918a: 28. (hb)
Chamberlin 1939: 228, 1958: 44; Doane et al.
1936; Edson 1967: 18; Essig 1926: 512, 1958: 512;
Keen 1952c: 158; McMullen & Atkins 1959b:
416; Swaine 1918a: 53; Wood, S. L. 1982b: 435.
(ds) Bedard 1938a; Blackwelder 1939; Butovitsch
1929: 8; Chamberlin 1918a, 1939: 228, 1958: 44;
Edson 1967: 18; Essig 1926: 512, 1958: 512; Gast
et al. 1989: 385; Hopping 1922; Keen 1929a: 13,
1952c: 158; Kleine 1934a: 169; Leng 1920: 337;
McComb et al. 1953: 4; McMullen & Atkins
1962a: 22; Patterson & Hatch 1945: 148; Schuder
1969: 81; Thatcher 1935: 261; Wood, S. L. 1948:
10, 1951a: 127, 1982b: 435. (tx) Blackman 1934:
6–7, 15–16; Bright 1967b: 674; Butovitsch 1929: 8;
Chamberlin 1939: 228, 1958: 44; Edson 1967: 18,
46; Hoebeke 1978; Keen 1929a: 13; de Ruette
1970: 101; Swaine 1917: 32, 1918a: 52–53; Wood,
S. L. 1966b: 30, 1970: 101, 1982b: 435. (ms)
Hatch 1938: 193.

morawitzi Semenov 1902: 267. Holotype ♀;
Petrovsk-Zabaikalye, in syst. fluvii Baleaga,
Zabaikalye, USSR; not located.

Figures: Michalski 1973a: pl. 42, Tsai & Li 1959:
78, Yin, Huang, & Li 1984: 37.

Distribution: Asia (Heilongjiang in China/ E
USSR).

Hosts: *Larix gmelinii*, *L. siberica*, *L. spp.*, *Pinus
koraiensis*.

References: (ay) Butovitsch 1929: 8, 48–49. (bv)
Grune 1970: 39; Rozhkov 1970: 133. (cn)
Esterberg 1959; Kontkanen 1932: 62; Kurenzov
1935c: 188; Plorov 1948: 55; Yanovskii & Korot-
kov 1984. (ec) Kurenzov 1934a: 57; Lindeman
1961: 99; Yanovskii & Korotkov 1984. (hb) Isaev
1966: 53–58; Kurenzov 1935a: 19, 24, 1948b: 102,
1950d: 195; Lindeman 1978; Postner 1974: 387;
Rimski-Korsakov et al. 1949: 300; Rozhkov 1970:
133; Stark 1952: 137; Vitomskii 1928a: 178–184;
Yin, Huang, & Li 1984: 36. (ds) Butovitsch 1929:
8, 48–49; Esterberg 1959; Grune 1979: 39; Hage-
dorn 1910d: 85; Hansen, V. 1939; Hellen 1947;
Klefsbeck & Sjöberg 1960a: 228; Kleine 1913b:
151, 1914b: 250, 1934a: 169; Kontkanen 1932: 62;
Krivolutskaya 1983; Kurenzov 1934a: 57, 1935a:
19, 24, 1935c: 188, 1936a: 114, 1936b: 351, 1938a:
65, 1965, 1967; Michalski 1973a: 124; Nuorteva

1971: 71; Postner 1974: 387; Rimski-Korsakov et
al. 1949: 300; Rozhkov 1970: 133; Shirskaya 1961;
Sokanovskii 1966: 390; Stark 1931a: 21, 1931d:
542, 1946: 595, 1952: 137; Strand 1946: 595;
Yanovskii 1974, 1977a; Yanovskii & Dmitrienko
1983; Yanovskii & Tegshzhargal 1985: 405; Yin,
Huang, & Li 1984: 36; Zinovjev 1955: 191. (tx)
Butovitsch 1929: 8, 48–49; Eggers 1942c: 33–34;
Grune 1979: 38–39; Hagedorn 1910a: 123; Kuren-
zov 1941a: 76–77, 1948b: 102; Michalski 1973a:
124–126, pl. 42; Postner 1974: 387; Reitter 1913a:
20; Schedl 1934f: 1632, 1945b: 16; Schmidt, G.
1980: 20; Semenov 1902: 267; Sokanovskii 1966:
390; Spessivtsev 1931: 18–19; Stark 1950: 224,
1952: 137–138; Tsai & Li 1959: 78; Tsai, Yin, &
Huang 1962: 5, 9; Yin & Huang 1980: 48; Yin,
Huang, & Li 1984: 36.

pini Eggers 1942c: 33. Holotype ♀; Ussuri
(Samarga); Eggers Collection, in NHMW,
Wien. Synonymy: Michalski 1973a: 124.

References: (cn) Archer 1866. (ec) Reid
1957c: 111. (hb) Stark 1952: 137. (ds) Soka-
novskii 1966: 390; Stark 1952: 137. (tx) Eggers
1942c: 33–34; Michalski 1973a: 124; Pfeffer
1944a: 131; Schedl 1948b: 31, 1979c: 195;
Sokanovskii 1966: 390; Stark 1952: 137. (ms)
Pfeffer 1944a: 131.

multistriatus (Marshall) 1802: 54 (*Ips*). Syntypes,
sex?, England; not located, possibly in BMNH,
London.

Figures: Balachowsky 1949a: 23, Barbey 1925:
601, Bevan 1987: 115, Borror & DeLong 1954:
423, Michalski 1973a: pl. 9.

Distribution: Africa (Algeria/ Morocco), Asia
(Iran/ Turkey/ E USSR), Australia (introduced),
Europe (Austria/ Belgium/ Bulgaria/ Czechoslo-
vakia/ Denmark/ England/ France/ Germany/
Greece/ Hungary/ Ireland/ Italy/ Luxemburg/
Netherlands/ S Norway/ Poland/ Portugal/ Roma-
nia/ Sardinia/ Spain/ S Sweden/ Switzerland/ W
USSR/ Yugoslavia), New Guinea (intercepted,
introduced?), North America (introduced into S
Canada and all states of USA).

Hosts: *Ulmus* spp., rare in other hosts.

Notes: (3) Eichhoff 1880: 41, 160 (named an aber-
ration or var. *triornatus*, no status in nomencla-
ture). From 1920 to 1990, hundreds of articles
that are not listed here appeared in popular and
semi-scientific journals and treated this species
and Dutch elm disease; most of these are listed in
the Experiment Station Record and the Insect
Pest Review.

References: (ay) Angst 1981; Baker & Estrin
1974; Beard et al. 1941; Blight, Henderson, &
Wadhams 1983; Butovitsch 1929: 8, 24–25; Cer-
nigliaro & Kocienski 1977; Chararas 1956a; Cha-
raras, Chipoulet, & Courtois 1979; Chatterjee
1971b; Choudhury 1979; Doskotch, Mikhail, &
Chatterjee 1973; Elliott, W. J. & Fried 1976; Esch-

- erich 1923b: 477, 494; Ferkovich & Norris 1971; Francke-Grosmann 1959; French, D. W. & Marinovs 1970; Cahan 1900; Galford 1972; Grant, A. J. & Lanier 1982; Grove 1983; Henderson & Wadhams 1981; Jefferies & Fairhurst 1982; Jumper & Cannon 1975, 1976; Kaston 1936; Kudon & Berisford 1981; Meyer 1975; Norris 1987; Page, R. E. & Willis 1983; Pantyukhov 1958; Peacock & Kleiner 1968; Scholz 1905: 144; Sinanuvong, Knowles, & Kearby 1971; Thomas, J. B. 1967. (bv) Al-Azawi 1960; Angst et al. 1982; Baker, J. E. 1969, 1970; Baker, J. E. & Norris 1967, 1968a, 1968b; Baker, J. E. et al. 1968; Barger 1979; Barger & Cannon 1987; Barger, Cuthbert, & Robertson 1971; Barger, Cuthbert, & Seegrist 1973; Barr, B. 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- Touhey & Bray 1961; Walther 1975; Walter 1935: 37; Weber, R. & Schurig 1984; Wurster, Wurster, & Strickland 1965.
- flavicornis* Chevrolat 1829: 181. Syntypes, sex?; Pavis (Lombardy), Italy; presumably at Liege, not located. Synonymy: Hagedorn 1910d: 86; Schedl 1948b: 9.
- References: **(hb)** Dombrowsky 1892. **(ds)** Dejean 1837; Schedl 1966f: 80, 1967d: 1, 1970e: 80, 1973a: 366, 1973d: 151, 1979e: 57; Stein & Weise 1877: 164. **(tx)** Butovitsch 1929: 9; Chevrolat 1829: 181; Dombrowsky 1892; Hagedorn 1910d: 86; Schedl 1948b: 9, 61.
- ulmi* Redtenbacher 1849a: 361. Syntypes, sex?; Austria; not located. Synonymy: Schedl 1948b: 9.
- Notes: (3) Balachowsky 1949a: 64 (treated as a good species).
- References: **(cn)** Marcu 1926c: 60. **(cc)** Fleischer 1911; Kleine 1908c: 177; Perris 1856a: 243; Pfeffer 1928b: 2. **(hb)** Dombrowsky 1892; Perris 1856a: 243; Rupertsberger 1880: 228; Stark 1952: 99. **(ds)** Calver 1884, 1893; Eggers 1904; Gaubil 1849: 127; Gemminger & Harold 1872: 2696; Hagedorn 1910d: 89; Kestercanek 1881a: 12; Kleine 1913a: 34, 1913b: 152; Kraatz 1869: 59; Lacordaire 1866: 387; Marcu 1926c: 60; Orest 1926b: 81–87, 1926c: 60; Pascovici et al. 1963: 153–175; Perris 1872a: 254, 1877a: 414; Pfeffer 1928b: 2, 1931b: 73; Redtenbacher 1858: 838, 1874: 373; Reitter 1894a: 44; Roubal 1941: 254; Schaum 1859: 95, 1862: 100; Schilsky 1890: 196, 1909: 187; Stark 1952: 99; Stein 1868: 113; Stein & Weise 1877: 164; Tredl 1907: 7. **(tx)** Balachowsky 1949a: 64; Butovitsch 1929: 7, 25; Dombrowsky 1892; Hagedorn 1910a: 124; Lacordaire 1866: 386; Redtenbacher 1849a: 361, 1849b: 27, 1858: 838, 1874: 373; Reitter 1894a: 44; Rey 1892b: 30; Rupertsberger 1880: 228; Schedl 1934f: 1632, 1948b: 9, 61, 1952f: 99; Spessivtsev 1913: 32.
- javanus* Chapuis 1869: 56. Holotype, sex?; Java; IRSNB, Brussels. Synonymy: Schedl 1954a: 137.
- References: **(ay)** Butovitsch 1929: 7. **(cn)** Kalshoven 1932: 242. **(ds)** Butovitsch 1929: 7; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 84; Kalshoven 1932: 242; Kleine 1913b: 151. **(tx)** Butovitsch 1929: 7; Chapuis 1869: 56, 1873: 264; Hagedorn 1910a: 123; Schedl 1954a: 137.
- orientalis* Eggers 1910f: 557 (*Eccoctogaster*). Lectotype ♂; Elisabethpol, Caucasica rossicae; USNM, Washington, designated by Anderson & Anderson 1971: 23. Synonymy: Schedl 1948b: 61.
- References: **(ay)** Butovitsch 1929: 9. **(cn)** Arnoldi et al. 1955: 657; Chorbadzhiyev 1929; Lozovoi 1948c: 364; Pfeffer 1979: 148; Yagdyev 1987. **(cc)** Lozovoi 1948c: 364; Mendel 1985; Pfeffer 1979: 148. **(hb)** Chorbadzhiyev 1929; Kurenzov 1948c: 364; Tschorbadjiev 1929: 158. **(ds)** Buresh & Lazarov 1956; Butovitsch 1929: 9; Chorbadzhiyev 1929; Iukhosvich 1955: 105; Kadyrov 1989; Kleine 1934a: 169; Pfeffer 1936: 90; Pjatsnitskii 1930a: 163; Schaufuss 1915: 1206; Sokanovskii 1966: 387; Tschorbadjiev 1929: 158. **(tx)** Anderson, W. H. & Anderson 1971: 23; Butovitsch 1929: 9; Eggers 1910f: 557–558, 1913a: 285, 1914: 108, 184–185; Reitter 1913a: 25; Schedl 1934f: 1632, 1948b: 61, Schedl 1979c: 180–181; Sokanovskii 1954: 13, 1966: 387; Wichmann 1913b: 211.
- nodifer* Reitter 1913a: 24. Holotype ♂; Walachei, Romania; NHMB, Budapest. Synonymy: Schedl 1948b: 61.
- References: **(ay)** Butovitsch 1929: 9. **(ds)** Butovitsch 1929; Schaufuss 1915: 1206; Sokanovskii 1966: 387. **(tx)** Butovitsch 1929: 9; Eggers 1913a: 285–286, 1914: 109; Reitter 1913a: 24; Schedl 1934f: 1632, 1948b: 61; Sokanovskii 1966: 387; Wood, S. L. 1982b: 430.
- abhorrens* Wichmann 1913b: 210 (*Eccoctogaster*). Holotype, sex?; Umgebung von Zara, Yugoslavia; (?) Muller Collection, Trieste. Synonymy: Schedl 1948b: 61.
- References: **(ay)** Butovitsch 1929: 9, 27. **(cc)** Novak 1952: 411. **(ds)** Butovitsch 1929; Kleine 1913b: 151; Langhoffer 1915c: 156; Novak 1952: 411; Sokanovskii 1966: 387. **(tx)** Butovitsch 1929: 9, 27; Eggers 1914: 185; Schedl 1934f: 1632, 1948b: 61; Sokanovskii 1954: 13, 1966: 387; Wichmann 1913b: 210.
- affinis* Eggers 1914: 108 (*Eccoctogaster*). Holotype ♂; Mazedonien; USNM, Washington. Synonymy: Schedl 1948b: 61.
- References: **(ay)** Butovitsch 1929: 6–7, 27, 43. **(cn)** Clinton & McCormick 1936; Leach 1940b: 227; Vajda 1952: 114. **(cc)** Escherich 1935; Leach 1940b: 227. **(hb)** Clinton & McCormick 1936. **(ds)** Buresh & Lazarov 1956; Butovitsch 1929: 6–7, 27, 43; Clinton & McCormick 1936; Kalandra & Pfeffer 1935: 1–17, 1936: 89; Schaufuss 1915: 1206; Sokanovskii 1966: 387; Sturm 1826: 194. **(tx)** Anderson, W. H. & Anderson 1971: 3; Butovitsch 1929: 6–7, 27, 43; Eggers 1914: 108–109, 184–185; Schedl 1934f: 1632, 1948b: 61; Sokanovskii 1954: 13, 1966: 387; Wichmann 1915b: 215.
- therondi* Hoffmann 1939: 36. Holotype, sex?; Nimes (Gard), France; MNHN, Paris. Synonymy: Schedl 1948b: 61.
- Notes: (3) Balachowsky 1949a: 64 (treated as a good species).
- References: **(ds)** Nosek 1958: 93; Sokanovskii 1966: 387. **(tx)** Balachowsky 1949a: 64; Hoffmann 1939: 36; Schedl 1948b: 61, 1954: 137; Sokanovskii 1954: 13, 1966: 387.
- papuanus* Schedl 1936d: 8. Syntypes, sex?; Kap Koenig Wilhelm, New Guinea; MNB, Berlin. Synonymy: Schedl 1962p: 201.

References: **(tx)** Schedl 1936d: 8–9, 1962p: 201, 1979c: 184.

mundus Wood 1968b: 13. Holotype ♂; 18 km N Tlaxco (Tlaxcala), Puebla, Mexico; Wood Collection.

Figures: Wood 1968b: 12.

Distribution: North America (Mexico, Puebla in Mexico).

Hosts: *Abies religiosa*.

References: **(hb)** Atkinson et al. 1986: 26. **(ds)** Atkinson & Equihua 1985a: 80, 1985b: 232; Atkinson et al. 1986: 26. **(tx)** Wood, S. L. 1968b: 12–13.

muticus Say 1824: 323. Syntypes, sex?; Missouri; Say Collection, lost.

Figures: Blackman 1922b: pl. 3, figs. 18, 23–24, Bright 1976d: 28, Wilson, Scuder, & Provonsha 1982: 67, 157.

Distribution: North America (District of Columbia, Florida, Illinois, Kansas, Kentucky, Maryland, Michigan, Mississippi, Missouri, New Jersey, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia in USA).

Hosts: *Celtis occidentalis*, accidental in *Quercus* sp.

References: **(ay)** Boving & Craighead 1931; Butovitsch 1929: 8; Hopkins 1894g, 1906b: 145, 148. **(cn)** Anonymous 1960x; Beal & Massey 1945: 70–71; Blackman 1950; Chamberlin 1924; Doane et al. 1936; Herrick 1935: 107; Herrick 1981 1899b: 15; Johnson, D. W. & Creasap 1978a; LeBaron 1872(August): 10; Packard 1890: 612, 860; Riley 1873: 105, 108; Swaine 1918a: 51; Walsh 1867b: 58; Wilson, M. C., Schuder, & Provonsha 1982: 67. **(cc)** Burks 1979: 856; Bushing 1965: 466; Felt 1906: 725; Hopkins 1891b: 259; Galford 1969b; Marsh 1979: 158; Matthews 1970; Pierce 1908: 386; Post 1947: 129; Richerson, J. V. & Borden 1972a. **(hb)** Baker, W. L. 1972: 239; Beal & Massey 1945: 70–71; Blackman 1922b: 42–43, 1950; Bright 1976d: 32; Chamberlin 1939: 226; Chittenden 1890; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Drooz 1985: 356; Galford 1969b; Fox 1897; Herrick 1935: 107; Hopkins 1894g, 1899b: 15, 1904b: 320; Klages 1896: 12, 282, 1897: 90; Packard 1890: 612, 860; Pierce 1907: 293; Post 1947: 129; Smith, J. B. 1886: 127; Swaine 1918a: 51; Wood, S. L. 1982b: 426. **(ds)** Anonymous 1960x; Atkinson et al. 1991: 157; Beal & Massey 1945: 70–71; Blackman 1922b, 1950; Blackwelder 1939; Blatchley & Leng 1916: 590; Bright 1976d: 32; Butovitsch 1929: 8; Chamberlin 1939: 226; Chapuis 1869: 58, 1873: 266; Chittenden 1890; Deyrup 1981b: 5; Deyrup & Atkinson 1987a: 65; Dodge 1938; Drooz 1986: 356; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 85–86; Hamilton 1895a: 378; Henshaw 1885: 149; Hoffmann 1942: 12; Hopkins 1892: 257, 259, 1893a: 140, 146, 1893b: 212, 1894: 280, 1903: 320, 1905: 145; Kirk 1969, 1970; Klages 1896: 11–12, 282, 1897: 90; Kleine 1913b: 152, 1914b:

1936, 1934a: 169; Leng 1920: 337; Melsheimer 1853: 87; Smith, J. B. 1886: 127, 1910: 403; Swaine 1909: 104; Weber & McPherson 1991: 54; Wood, S. L. 1982b: 426. **(tx)** Beal & Massey 1945: 70–71; Benoit 1986: 238; Blackman 1922b: 42–43; Blatchley & Leng 1916: 590; Boving & Craighead 1931; Bright 1976d: 28, 32; Butovitsch 1929: 8; Chamberlin 1939: 226; Chapuis 1869: 58, 1873: 266; Dodge 1938: 21–22; Hagedorn 1910a: 123; LeConte 1868: 166, 1876: 372; Muesebeck 1942: 100, 1950: 137; Say 1824: 182, 323; Schedl 1971f: 148; Swaine 1909: 104–105, 1910a: 33, 1918a: 51; Wilson, M. C., Schuder, & Provonsha 1982: 67, 157; Wood, S. L. 1982b: 426.

nakanei Nobuchi 1967: 16. Holotype ♂?; Alisan, 2300 m, Nantou Hsien, Taiwan; Natural Science Museum, Tokyo.

Distribution: Asia (Taiwan).

References: **(tx)** Nobuchi 1967: 16, pl. 1.

neofacialis Schedl 1976a: 60. Holotype ♀; Varginha, M. Gerais; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: **(tx)** Schedl 1976a: 60.

nevermanni Schedl 1935f: 272. Lectotype ♂; Hamburgfarm on Rio Reventazon, Ebene Limon, Costa Rica; Schedl Collection in NHMW, Wien, designated by Wood 1982b: 449.

Distribution: North America (Costa Rica).

Notes: (1) Schedl 1979c: 165 (citation of holotype invalid [lectotype is a male, not a female as stated]).

References: **(ds)** Blackwelder 1947: 788; Wood, S. L. 1982b: 449. **(tx)** Schedl 1935f: 272, 1979c: 165; Wood, S. L. 1982b: 449.

nitidus Schedl 1936d: 8. Holotype ♀; Himalaya; Schedl Collection in NHMW, Wien.

Figures: Yin & Huang 1980: 48, 1981: 555.

Distribution: Asia (Himachal Pradesh, Kashmir, Uttar Pradesh in India/Xizang [Tibet] in China).

Hosts: *Juglans regia*, *Prunus armeniaca*, *Pyrus malus*, *Cotoneaster microphylla*.

Notes: (3) Beeson 1922c: 498, 1941 (1961: 296) (*juglandis*, nomen nudum), Schedl 1958g: 167 (described male).

References: **(cn)** Hill, D. S. 1983: 679; Kleine 1932a: 304; Mathur & Singh 1960b: 80. **(hb)** Beeson 1922c: 498; Hill, D. S. 1983b: 679; Kleine 1932a: 304. **(ds)** Hill, D. S. 1983: 679; Mathur & Singh 1960b: 80; Schedl 1971c: 361, 1974a: 85; Yin & Huang 1981: 555; Yin, Huang, & Li 1984: 23. **(tx)** Beeson 1922c: 498, 1941 (1961: 296); Kleine 1932a: 304; Schedl 1936d: 8, 1958g: 165–167, 1979c: 170–171; Yin & Huang 1980: 47–48, 1981: 555; Yin, Huang, & Li 1984: 23.

nodatus Wood 1969b: 12. Holotype ♂; Santa Ana, San Jose, Costa Rica; Wood Collection.

Figures: Wood 1969b: 12.

Distribution: North America (Costa Rica/Panama).

Hosts: Liana.

References: **(hb)** Wood, S. L. 1982b: 446. **(ds)** Wood, S. L. 1982b: 446. **(tx)** Wood, S. L. 1969b: 12, 1982b: 446.

nodulus (Wichmann) 1915a: 102 (*Eccoptogaster*).

Holotype ♀; Petropolis (nordlich von Rio de Janeiro), Brazil; not given.

Distribution: South America (Brazil).

References: **(ay)** Butovitsch 1929: 9. **(ds)** Butovitsch 1929: 9. **(tx)** Butovitsch 1929: 9; Schedl 1937h: 155, 157, 162; Wichmann 1915a: 102–104.

nodicornis Wichmann 1915b: 216 (*Eccoptogaster*). Syntypes, sex?; Brazil: Ypanema; Natterer Collection and NHMW, Wien. Synonymy: Schedl 1937h: 155, 157, 162.

References: **(ay)** Butovitsch 1929: 8. **(ds)** Blackwelder 1947: 788; Butovitsch 1929: 8. **(tx)** Butovitsch 1929: 8; Schedl 1937h: 155, 157, 162, 1952a: 444, 1958f: 36; Wichmann 1915b: 216–217.

novateutonicus Schedl 1937h: 162. Syntypes ♂ ♀; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien, Plaumann Collection, and Stroh-meyer Collection, Eberswald.

Distribution: South America (Brazil).

Notes: (1) Schedl 1979c: 172 (citation of holotype invalid).

References: **(ds)** Blackwelder 1947: 788; Schedl 1966f: 81, 1970e: 79. **(tx)** de Ruelle 1970: 113; Schedl 1937h: 157, 162–163, 1948d: 36, 1951h: 288, 1979c: 172.

numidicus Brisout 1883: 147. Syntypes, sex?; Algeria (Foret de Batna); not given.

Figures: Balachowsky 1969: 651, Michalski 1973a: 10.

Distribution: Africa (Algeria/Morocco).

Hosts: *Cedrus atlantica*.

References: **(ay)** Butovitsch 1929: 9. **(cn)** Chararas 1977c. **(ec)** Peyerimhoff 1934: 52; Pfeffer 1960. **(hb)** Balachowsky 1969: 650; Lepiney & Mimeur 1932: 44; Peyerimhoff 1919: 247. **(ds)** Balachowsky 1969: 650; Butovitsch 1929: 9; Hagedorn 1910d: 85; Kleine 1913b: 152, 1914a: 16, 1934a: 169; Lepiney & Mimeur 1932: 44; Michalski 1973a: 46; Normand 1937: 267–268; Peyerimhoff 1919: 247, 1933b: 303, 1934: 52; Pfeffer 1947d: 128, 1960; Reitter 1894a: 42; Schedl 1964a: 95, 1971d: 426. **(tx)** Balachowsky 1969: 650–651; Brisout de Barneville 1883: 147; Butovitsch 1929: 9; Eggers 1911a, 1913a: 286, 1914: 184–185; Hagedorn 1910a: 128; Michalski 1973a: 46–47, pl. 10; Reitter 1894a: 42, 1913a: 20; Schedl 1934f: 1634, 1948b: 14, 1964a: 95; Semenov 1902: 268; Sokanovskii 1954: 15.

nunbergi Michalski 1964: 665. Holotype ♀; Solnechny Kluch, near Shkotovo, southern Primorye, USSR; IZL, Leningrad.

Figures: Michalski 1973a: pl. 21.

Distribution: Asia (Primorye in E USSR).

References: **(ds)** Krivolutsкая 1983; Michalski 1973a: 73; Sokanovskii 1966: 389. **(tx)** Michalski 1964: 665, 1965a: 113, 1968b: 194, 1973a: 73–74, pl. 21; Sokanovskii 1966: 389.

obelus Wood 1962: 81. Holotype ♂; Payson Canyon, Utah [USA]; Wood Collection.

Figures: Edson 1967: 55 (adult), 58 (galleries).

Distribution: North America (N Arizona, Colorado, E Nevada, New Mexico, Utah in USA).

Hosts: *Abies concolor*.

References: **(hb)** Edson 1967: 31; Wood, S. L. 1982b: 442. **(ds)** Edson 1967: 31; Furniss, R. L. & Carolin 1977: 404; Wood, S. L. 1982b: 442. **(tx)** Edson 1967: 31, 55, 58; Wood, S. L. 1962: 81, 1982b: 442.

opacus Blackman 1934: 20. Holotype ♂; Ouray, Colorado [USA]; USNM, Washington.

Figures: Edson 1967: 50–51 (adult), 57–58 (galleries).

Distribution: North America (Alberta in Canada/ N Arizona, N California, Colorado, Idaho, Montana, Oregon, Utah, Washington, Wyoming in USA).

Hosts: *Abies concolor*, *A. grandis*, *A. lasiocarpa*, *Picea engelmannii*.

References: **(ec)** Schedl 1958d: 187. **(hb)** Bright 1976d: 34; Bright & Skidmore 1991: 368; Chamberlin 1939: 230; Edson 1967: 25; Wood, S. L. 1982b: 441. **(ds)** Bright 1976d: 34; Chamberlin 1939: 230; Edson 1967: 25; Furniss, R. L. & Carolin 1977: 404; Cast et al. 1989: 385; Wood, S. L. 1948: 11, 1951a: 127, 1982b: 441. **(tx)** Blackman 1934: 20; Bright 1976d: 34; Bright & Skidmore 1991: 368; Chamberlin 1939: 230; Edson 1967: 25, 50–51, 57–58; Wood, S. L. 1951a: 127, 1977c: 388, 1982b: 441.

abietis Blackman 1934: 21. Holotype ♂; Sandpoint, Idaho [USA]; USNM, Washington. Synonymy: Wood 1977c: 388.

References: **(ec)** Burks 1979: 856; Furniss, R. L. & Carolin 1977: 403; Hertert, Miller, & Partridge 1975: 901; Marsh 1979: 157; Matthews 1970. **(hb)** Bright 1976d: 34; Bright & Stark 1973: 14; Chamberlin 1939: 230, 1958: 46; Edson 1967: 24; Furniss, R. L. & Carolin 1977: 403. **(ds)** Blackwelder 1939; Bright 1976d: 34; Bright & Stark 1973: 14; Chamberlin 1939: 230, 1958: 46; Edson 1967: 24; Furniss, R. L. & Carolin 1977: 403; Hertert, Miller, & Partridge 1975: 901; Thatcher 1935: 261; Wood, S. L. 1972a: 397. **(tx)** Blackman 1934: 21–22; Bright 1976d: 34; Chamberlin 1939: 230, 1958: 46; Edson 1967: 24, 50; de Ruelle 1970: 113; Wood, S. L. 1972a: 397, 1977c: 388.

oregoni Blackman 1934: 18. Holotype ♂; Ashland, Oregon [USA]; USNM, Washington.

Figures: Edson 1967: 47 (adult), 57 (galleries).

Distribution: North America (California, Oregon, Washington in USA).

Hosts: *Pseudotsuga macrocarpa*, *P. menziesii*.

References: **(cn)** Doane et al. 1936. **(hb)** Bright 1976d: 33; Bright & Stark 1973: 14; Chamberlin 1939: 229, 1958: 45; Doane et al. 1936; Edson 1967: 20; Wood, S. L. 1982b: 438. **(ds)** Blackwelder 1939; Bright 1976d: 33; Bright & Stark 1973: 14; Chamberlin 1939: 229, 1958: 45; Edson 1967: 20; Furniss, R. L. & Carolin 1977: 404; Wood, S. L. 1972a: 397, 1982b: 438. **(tx)** Blackman 1934: 18–19; Bright 1976d: 33; Chamberlin 1939: 229, 1958: 45; Edson 1967: 20, 47; de Ruelle 1970: 113; Wood, S. L. 1972a: 397, 1982b: 438.

parviclaviger Yin & Huang 1980: 49, 52. Holotype ♂;

Shansi: Jiangxian; IZAS, Beijing.

Figures: Yin & Huang 1980: 49.

Distribution: Asia (Shanxi in China).

Hosts: *Ulmus dividiana*, *U. pumila*.

References: **(ds)** Yin, Huang, & Li 1984: 21. **(tx)** Yin & Huang 1980: 49, 52; Yin, Huang, & Li 1984: 21.

peruensis Schedl 1937h: 157, 160. Lectotype ♂; Peru, Rio Toro, La Merdet Chanchamayo; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 192.

Distribution: South America (Peru).

References: **(ds)** Blackwelder 1947: 788. **(tx)** Schedl 1937h: 157, 160–161, 1952h: 67, 1979c: 192.

piceae (Swaine) 1910a: 34 (*Eccoptogaster*). Lectotype ♂; Ste Ann's [Ste. Anne de Bellevue, Quebec, Canada]; Cornell University, Ithaca, designated by Bright 1967b: 674.

Figures: Bright 1976d: 200, 205, Edson 1967: 40 (adult), 56 (galleries).

Distribution: North America (Alaska/ all provinces in Canada/ California, Colorado, Idaho, Maine, Massachusetts, Michigan, Montana, New Mexico, New York, North Dakota, Oregon, South Dakota, Utah, Washington, Wisconsin, Wyoming in USA).

Hosts: *Picea* spp., uncommon in *Larix laricina*.

References: **(ay)** Butovitsch 1929: 9, 49; Kirtibutr & Schenk 1977: 381; Thomas, J. B. 1967; Thomas, J. B. & Krywienczyk 1966. **(bv)** Hosking & Knight 1975. **(cn)** Beckwith 1972b; Blackman 1950; Carroll & Parrott 1960; Chamberlin 1924; Chenier & Philogene 1989a; Felt 1926: 250, 271, 1930a: 247, 271; Hopkins 1904a: 26; Keen 1952c: 165; Kondo & Taylor 1985: 33; Lindgren 1980a: 70; Lindquist, O. H. & Syme 1981: 100; Massey & Wygant 1954: 21; Ruppel 1967: 87; Schuder 1969: 76; Smith, G. J. & Melvin 1974b; Swaine 1918a: 53; Swaine & Craighead 1924: 1–27; Woods 1969. **(ce)** Beckwith 1972b; Blackman & Stage 1918: 9–115; Bushing 1965: 466; Furniss, R. L. & Carolin 1977: 404; Marsh 1979: 158; Massey & Wygant 1954: 21; Matthews 1970; Reid 1957b: 7; Tomalak, Welch, & Galloway 1989: 3; Werner & Holsten 1984. **(hb)** Baker, W. L. 1972: 239; Beckwith 1972b; Blackman 1919a, 1950; Blackman & Stage 1918, 1919a; Bright 1976d: 39; Bright & Stark 1973: 14;

Chamberlin 1939: 233, 1958: 49–50; Drooz 1985: 356; Edson 1967: 10; Felt 1924: 271, 1926: 250, 271, 1930a: 247, 271; Furniss, R. L. & Carolin 1977: 404; Gara & Holsten 1975; Hopkins 1904a: 26; Keen 1952c: 165; Kirkendall 1984: 235; Lindgren 1980a: 70; Massey & Wygant 1954: 21; Swaine 1918a: 53; Vitomskii 1928a: 178; Wolcott & Montgomery 1933: 164; Wood, S. L. 1982b: 431; Woods 1969. **(ds)** Anonymous 1926c: 515; Ashworth 1980; Ashworth & Brophy 1972: 2984; Ashworth & Cvanara 1983; Ashworth et al. 1981; Beaulne 1956; Beckwith 1972a; Blackman 1919: 149, 1950; Blackwelder 1939; Blatchley & Leng 1916: 589; Bright 1964: 170, 1971a: 125, 1976d: 39; Bright & Stark 1973: 14; Butovitsch 1929: 9, 49; Chamberlin 1925, 1939: 233, 1958: 49–50; Deyrup 1981b: 5; Dodge 1938: 21–22; Edson 1967: 10; Elias 1982b, 1982d, 1983, 1985: 39; Elias, Short, & Clark 1986; Evans, D. 1983: 36; Evans, D., Lowe, & Hunt 1978; Felt 1926: 250, 271, 1930a: 247, 271; Furniss, R. L. & Carolin 1977: 404; Gara & Holsten 1975; Gast et al. 1984: 385; Hubbard & Schwarz 1878b: 626; Keen 1952c: 165; Kleine 1913b: 152, 1934a: 169; Knull 1932: 65; Kusch 1967; Leng 1920: 337; Leonard 1928: 515; Lindquist, O. H. & Syme 1981: 100; McGugan 1959; Miller, Fitzgerald, & Buhay 1987; Miller, R. F. & Morgan 1982; Morgan, A. J. & Morgan 1979, 1980: 1110; Morgan, Anne, Morgan, & Elias 1985; Ruppel 1967: 87; Schuder 1969: 76; Smith, G. J. & Melvin 1974b; Still, Tidsbury, & Melvin 1974a, 1974b; Werner & Holsten 1984; Wolcott & Montgomery 1933: 164; Wood, S. L. 1951a: 127, 1972a: 396, 1982b: 431; Woods 1969. **(tx)** Beckwith 1972a; Blackman 1934: 10, 26–27; Blatchley & Leng 1916: 589; Bright 1967b: 674, 1976d: 39, 200, 205; Butovitsch 1929: 9, 49; Chamberlin 1939: 233, 1958: 49–50; Dodge 1938: 21–22; Edson 1967: 10, 40; Evans, D. 1983: 36; Hoebeke 1978; Kusch 1967; Lindquist, O. H. & Syme 1981: 100; Pardy 1974, 1977, 1983; Schedl 1979c: 193; Swaine 1909: 34, 1910a: 33–35, 1918a: 53; Thomas, J. B. 1967; Thomas, J. B. & Krywienczyk 1966; Titus, Meikle, & Harrison 1985: 116; Wood, S. L. 1972a: 396, 1982b: 431. **(ms)** Chenier & Philogene 1989a.

pilosus Yin & Huang 1980: 49, 52. Holotype ♂; Szechwan: Kangding, 1700 m; IZAS, Beijing.

Figures: Yin & Huang 1980: 50.

Distribution: Asia (Sichuan in China).

References: **(ds)** Yin, Huang, & Li 1984: 27. **(tx)** Yin & Huang 1980: 49–50, 52; Yin, Huang, & Li 1984: 27.

pinnatus Eggers 1928c: 94. Holotype ♀; Brasil, Blumenau; Eggers Collection, in NHMW, Wien.

Distribution: South America (Brazil).

References: **(ds)** Blackwelder 1947: 788. **(tx)** Eggers 1928c: 94, 1931b: 36; Schedl 1937h: 155, 158, 1979c: 195.

pomi Yin & Huang 1980: 50, 53. Holotype ♂; Tibet: Pomi, 2750 m; IZAS, Beijing.

Distribution: Asia (Yunnan, Xizang [Tibet] in China).

Hosts: *Prunus persica*, *P. tomentosa*, *Malus baccata*, *M. yunnanensis*, *M.* spp.

References: (tx) Yin & Huang 1980: 50–53; Yin, Huang, & Li 1984: 39.

praeceps LeConte 1876: 373. Lectotype ♀; Calaveras, California [USA]; MCZ, Cambridge, designated by Wood 1982b: 439.

Figures: Edson 1967: 54 (adult), 58 (galleries).

Distribution: North America (British Columbia in Canada/ California, N Idaho, Oregon, Washington in USA).

Hosts: *Abies concolor*.

Notes: (3) Blackman 1934: 6, 18, 20 (redescription).

References: (ay) Butovitsch 1929: 9, (cn) Doane et al. 1936; Essig 1926: 511, 1958: 511; Hatch 1938: 193; Hopkins 1899b: 16, 26–27, 1904a: 21; Keen 1952c: 158; Leach 1940h: 224; Struble 1937d: 10, 1957: 12–14; Swaine 1918a: 52. (cc) Ashraf & Berryman 1969: 12; Berryman 1968a: 66; Burks 1979: 778; Bushing 1965: 466; Furniss, R. L. & Carolin 1977: 404; Kinn 1971; Leach 1940b: 224; Marsh 1979: 148; Muesebeck 1938: 281–287; Struble 1957: 12; Tehon 1942: 235; Wright 1938: 759–773. (hb) Bright & Stark 1973: 14; Chamberlin 1939: 229, 1958: 45; Doane et al. 1936; Edson 1967: 30; Essig 1926: 511, 1958: 511; Furniss, R. L. & Carolin 1977: 404; Hopkins 1899b: 16, 26, 1904a: 21; Keen 1952c: 158; Pierce 1907: 293; Struble 1937d: 10, 1957: 12; Swaine 1918a: 52; Wood, S. L. 1982b: 439. (ds) Blackwelder 1939; Bright & Stark 1973: 14; Butovitsch 1929: 9; Chamberlin 1925, 1939: 229, 1958: 45; Cockerell et al. 1907; Currie 1905: 76; Edson 1967: 30; Essig 1926: 511, 1958: 511; Face 1906: 202; Fall & Cockerell 1907: 217; Furniss, R. L. & Carolin 1977: 404; Hagedorn 1910d: 85; Henshaw 1882: 269, 1885: 149; Hopping 1922; Keen 1929a: 12, 1952c: 158; Kleine 1913b: 152, 1914b: 391, 1934a: 169; Leng 1920: 337; Snow 1907: 188; Swaine 1909: 105; Wood, S. L. 1948: 11, 1951a: 127, 1972a: 397, 1982b: 439. (tx) Blackman 1934: 5–6, 18, 20; Butovitsch 1929: 9; Chamberlin 1939: 229, 1958: 45; Edson 1967: 30, 54; Hagedorn 1910a: 123; Keen 1929a: 12; LeConte 1876: 373; Swaine 1909: 105, 1910a: 33, 1918a: 52; Wood, S. L. 1972a: 397, 1982b: 439. (ms) Hatch 1938: 193.

propinquus Blandford 1896e: 121. Syntypes, sex?: Mexico, Veracruz and Teapa in Tabasco, and Guatemala, Chacoj; BMNH, London.

Figures: Atkinson et al. 1986: 57.

Distribution: Antilles Islands (Cuba), North America (Costa Rica/ Guatemala/ Chihuahua, Nayarit, Tabasco, Veracruz in Mexico).

Hosts: *Inga paterno*, *Lonchocarpus* sp.

References: (ay) Butovitsch 1929: 9. (bv) Kirken-

dall 1984. (cc) Equihua & Atkinson 1986: 627. (hb) Atkinson et al. 1986: 54; Equihua & Atkinson 1986: 627; Kirkendall 1984; Wood, S. L. 1982b: 447. (ds) Atkinson et al. 1986: 54; Blackwelder 1947: 788; Butovitsch 1929: 9; Equihua & Atkinson 1986: 627; Estrada & Atkinson 1988: 204; Ferrer 1942; Hagedorn 1910d: 85; Kleine 1913b: 152, 1914b: 353, 365; Schedl 1963c: 156, 1972g: 38; Wood, S. L. 1982b: 447. (tx) Atkinson et al. 1986: 57; Blandford 1896e: 121; Butovitsch 1929: 9; Hagedorn 1910a: 123; Muskus, A. 1984: 66; Schedl 1940a: 329; Wood, S. L. 1977b: 210, 1982b: 447.

penicillus Schedl 1973d: 165. Holotype ♂; Veracruz, Mexico; Schedl Collection in NHMW, Wien. Synonymy: Wood 1977b: 210.

References: (ds) Escalera 1919. (tx) Schedl 1973d: 165; Wood, S. L. 1977b: 210.

proximus Chapuis 1869: 57. Holotype ♀; Nouvelle Granada; IRSNB, Brussels.

Distribution: South America (presumably Colombia/ Venezuela).

Notes: (3) Reports of this species from Argentina by Schedl (1951h: 286, 1952a: 445, 1958f: 35) require confirmation.

References: (ay) Butovitsch 1929: 9. (ds) Blackwelder 1947; Butovitsch 1929: 9; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 85; Kleine 1913b: 152, 1914b: 342; Schedl 1966f: 81, 1970e: 79. (tx) Butovitsch 1929: 9; Chapuis 1869: 57, 1873: 265; Hagedorn 1910a: 123; Schedl 1937h: 155, 164, 1951h: 286, 1952a: 445, 1958f: 35.

pseudocostellatus Schedl 1937h: 159. Holotype ♀; Sao Paulo, Brasilien; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 788; Schedl 1966f: 81, 1970e: 80, 1972g: 41, 1973d: 150. (tx) Schedl 1937h: 156, 159, 1979c: 201.

pubescens Stark 1936e: 153. Lectotype ♂; Suchan, Primorye, USSR; IZL, Leningrad, designated by Michalski 1968b: 188.

Figures: Michalski 1968a: 109, 1973a: pl. 11.

Distribution: Asia (E USSR).

Hosts: *Ulmus propinqua*, *U. japonica*, *Carpinus cordata*.

References: (cn) Kurenzov 1935c: 189 (cc) Kurenzov 1934a: 50, 57. (hb) Kurenzov 1935a: 20, 23, 1948b: 121. (ds) Krivolutskaya 1983; Kurenzov 1934a: 50, 57, 1935a: 20, 23, 1935c: 189, 1936b: 350; Michalski 1973a: 47; Sokanovskii 1966: 388; Stark 1936e: 153. (tx) Balachowsky 1949: 65; Eggers 1942: 34–35; Kurenzov 1935: 24, 1941a: 98, 1948b: 121; Michalski 1968a: 109, 1968b: 188, 1969c: 661, 1973a: 47–49, pl. 11; Pfeffer 1944a: 131; Schedl 1948b: 59, 1952k: 158, 1979c: 203, 1981b: 43; Sokanovskii 1966: 388; Stark 1936e: 153, 1951: 229, 1952: 106–107; Tsai, Yin, & Huang 1962: 6. (ms) Pfeffer 1944a: 131.

- pubescens* Eggers 1942c: 34. Holotype, sex²; Suchan, Primorye, USSR; Eggers Collection, preoccupied, type not mentioned by Anderson & Anderson 1971 or Schedl 1979c. Synonymy: Pfeffer 1944a: 131, Schedl 1948b: 59. References: (hb) Stark 1952: 106. (ds) Stark 1952: 106. (tx) Eggers 1942c: 34, 1951: 158; Pfeffer 1944a: 131; Schedl 1948b: 59, 1952k: 158; Stark 1951: 229, 1952: 106.
- pygmaeus* (Fabricius) 1787: 37 (*Bostrichus*). Syn-types 2, sex²; Halae Saxoniae, Germany; UZMC, Copenhagen. Figures: Michalski 1973a: pl. 22, Pfeffer 1989a: pl. 5, Sokanovskii 1966: 382. Distribution: Asia (Turkey/ E USSR), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ France/ Germany/ Greece/ Hungary/ Italy/ Netherlands/ Poland/ Portugal/ Romania/ Sweden/ W USSR). Hosts: *Ulmus* spp., *Carpinus* sp., *Fagus* spp., *Olea europaea*, *Prunus* spp., *Quercus* spp. Notes: (3) Butovitsch 1929: 9 (*minutus* Zieg., nomen nudum), 1929: 30 (described aberration *inaequipunctatus*, no status in nomenclature). References: (ay) van Deventer & Minks 1977; Escherich 1923b: 478, 497; Francke-Grossmann 1959; Scheyvrew 1889a: 22. (bv) Barr, B. A. 1969: 643; Inscoc 1982; Klassen, Ridgway, & Inscoc 1982; Klimetzek & Kopp 1983; Maksimovic 1979a; Manojlovic 1982b; Michalski 1959c: 167; Minks & van Deventer 1978. (cn) Acatay 1943a: 56; Acloque 1914; Archer 1866; Chararas 1972; Chorbadzhevo 1929; Clinton & McCormick 1936; van Deventer & Minks 1977; Escherich 1923b: 478, 497; Esterberg 1959; Feisthamel 1836, 1837; Fridrici 1860; Froggatt 1899; Garcia-Tejero 1955: 227; Gradojevic 1940; Gyofei 1959; Kalandra & Pfeffer 1935: 6, 1938: 24–33; Karnosky 1976; Kholodkovskii 1912: 290; Leach 1940b: 227; Liese & Butovitsch 1931: 1114; Lokaj 1906: 21; Maksimovic & Motal 1983; Marcu 1926c: 58; Maslov 1971; Mathiesen 1950: 74; Minks & van Deventer 1978; Mokrzecki 1926b: 4; Packard 1890: 860; Peck 1879: 37; Pfeffer 1979: 148; Pierce, W. D. 1917: 96; Rhumbler 1927: 285; Spassky 1916: 219–226; Schwerdtfeger 1944a: 172, 1957a: 181; Spassky 1916: 219–226; Stefan 1961; Stepanov 1951: 52; Tübenf 1936: 500; Vajda 1952: 114; Vasiliev 1916: 20–23; Vorontson et al. 1987; Wachtl 1901: 380; Walsh 1867b: 58; Zimmerman, G. & Bathon 1983. (ce) Androic 1966: 46; Apel 1983; Arambourg 1964: 115; Balazy 1965a; Balazy & Michalski 1960; Boucek 1958; Chararas 1959a; Cooreman 1963: 46; Elliot & Morley 1907; Escherich 1935; Francke-Grossmann 1959; Fry 1989: 18; Graham 1969: 879; Haeselbarth 1967; Heqvist 1963, 1967: 69; Hirschmann & Zirngiebl-Nicol 1961; Jannicky 1957b: 20, 1957c; Karnosky 1976; Kleine 1908c: 177, 1944: 78; Koluhajiv 1954: 22; Kopyl 1983; Kostenko 1929; Leach 1940b: 227; Lipa 1968; Lipa & Chmielewski 1977; Maksimovic 1979a, 1979b, 1986a; Maksimovic & Motal 1981, 1983; Merlin 1984; Meyer 1934: 612; Michalski 1973b, 1976; Mozolevskaya et al. 1987; Nosek 1959a: 118, 1959b: 85; Novak, P. 1952: 411; Nuorteva 1957b: 52; Palm 1958: 346–347; Perris 1852: 513, 1856a: 243; Pfeffer 1928b: 2, 1943b: 180, 1979: 148; Rondani 1873: 162; Ruschka 1916: 27; Schaarschmidt 1959: 803; Schimitschek 1964e; Schwerdtfeger 1944a: 172, 1957a: 181; Sengonea & Leisse 1984; Sitovskii 1930: 3, 11; Stepanov 1951: 52; Strjcek 1988; Szczepanski 1960a: 409; Teocchi 1965: 4; Thompson, W. R. 1943: 106; Tudor 1969: 33; Vitzthum 1921a: 33, 1921b: 76, 1926: 462; Wichmann 1916: 13, 1916b: 432–433; Zimmermann, G. & Bathon 1983. (hb) Acatay 1943a: 56; Apel 1983; Audouin 1836; Barbey 1901: 16, 37; Budge 1949; Butovitsch 1929; Chararas 1972; Chittenden 1890; Chorbadzhevo 1929; Clinton & McCormick 1936; Decaux 1890c, 1890e; van Deventer & Minks 1977; Dombrowsky 1887, 1892; Eggers 1906; Eichhoff 1881a: 40, 152; Escherich 1923b: 478, 497; Everts 1903: 740; Fisher 1931; Froggatt 1899; Froriep 1836; Fuchs 1904a; Girard 1873; Gyofei 1957; Henschel 1895a: 157; Karpinski & Strawinski 1948: 153; Keller 1913: 242; Kholodkovskii 1912: 290; Kostin 1960: 130; Lengerken 1939: 49, 1954: 65; Lindeman 1964: 78–81; Madon 1930: 99; Maksimovic 1979a, 1979b; Maksimovic & Motal 1981; Manojlovic 1986b; Mareu 1941: 401; Maslov 1963a, 1963c: 846, 1964; Masutti 1964; Merlin 1984; Michalski 1959b: 161, 1959c: 167; Mozolevskaya et al. 1987; Nosek 1959a: 118, 1959b: 85; Packard 1890: 860; Perris 1852: 513, 1856a: 243; Postner 1974: 384; Ratzeburg 1837: 186, 1839: 228; Rhumbler 1927: 285; Rudnev & Stepanova 1960: 773–777, 1961; Rupertsberger 1880: 227; Schedl 1981b: 43; Schimitschek 1939c: 274; Schwerdtfeger 1944a: 172, 1957a: 181, 1981: 187; Spessivtsev 1913a: 34, 39; Stark 1926a: 331, 1952: 105; Tschorbadijev 1929: 154; Wachtl 1901: 380; Wichmann 1909a: 165, 1916: 13. (ds) Acloque 1896, 1914; Andersch 1851; Androic 1966: 46; Audouin 1836; Audras & Schaefer 1957; Balachowsky 1944b; Barthe 1896; Bau 1888; Bedel 1888b: 387, 406; Bielz 1851, 1857; Blanchere & Robert 1889; Borchert 1951; Brakman 1966b: 203; Brancsik 1871; Buresh & Lazarov 1956; Butovitsch 1929: 7, 30; Calwer 1884, 1893; Chapuis 1869: 54, 1873: 262; Chapuis & Candeze 1853; Chittenden 1890; Chorbadzhevo 1924d, 1929; Clinton & McCormick 1936; Comolli 1837: 37; Debatisse 1945; Dejean 1821, 1825, 1837; Duftschmidt 1825; Eder 1934; Eggers 1904, 1906; Endrodi 1958b; Escalera 1919; Escherich 1923b: 478, 497, 1932b; Esterberg 1928, 1959; Everts 1922: 637, 1925; Forster 1849: 440; Fuchs 1904a; Gaubil 1849: 127; Gemminger & Harold 1872: 2695; Cozis 1875: 80; Grune

- 1879: 37; Gyllenhal 1827: 620; Hagedorn 1910d: 85–86; Hansen, V. 1939: Hellen 1947; Henschel 1895a: 157; Heyden, Reitter, & Weise 1853: 181, 1891: 670, 1906: 708; Horion 1951; Illiger 1805: 130; Jacentkovsky 1935: 18; Jacentkovsky 1912: 256; Kaltenbach 1874: 535, 646; Kamp 1979; Karpinski 1925: 215, 1948a: 173, 1948b: 225; Karpinski & Strawinski 1948: 153; Keler 1925b: 270; Kersten 1933: 77; Kestercanek 1851a: 12; Klefbeck & Sjöberg 1960: 225; Kleine 1912a: 263, 267, 1913a: 34, 1913b: 152, 1934a: 169; Koca 1905: 192; Koch 1977: 34; Kolilajiv 1934: 65; Kostenko 1929; Kraatz 1869: 59; Kugelann 1794: 526; Lacordaire 1866: 387; Langhoffer 1915c: 156; Leclercq 1971; Leder 1871: 131; Lentz 1857: 140; Lokaj 1865: 64; Lomnicki 1886a: 241, 1913b: 147; Lucht 1957: 275; Luigioni 1929: 990; Luria 1958: 299; Marcu 1926c: 58; Michalski 1959b: 161, 1973a: 75; Negru 1957: 129; Negru & Rosca 1967: 141; Novak, P. 1952: 411, 1964; Nürnberg 1925b: 57, 92, 1954: 89; Oliveira 1857: 327; Orest 1926c: 58; Palm 1959: 212; Pascovici 1962; Pascovici et al. 1963: 153–175; Perris 1876a: 254, 1877a: 414; Pfeffer 1925b: 2, 1931b: 73, 1959a: 47; Pierce, W. D. 1917: 96; Pittioni 1943: 174; Pjatnitskii 1932: 295–302; Postner 1974: 384; Rapp 1934: 716; Ratzeburg 1837: 186, 1839: 228; Redtenbacher 1855: 835, 1874: 372; Reitter 1894a: 41, 1916: 271; Revy & Siroki 1942: 82; Roubal 1908: 12, 1935b: 72, 1941: 255; Sainte-Claire & Mequignon 1938: 443; Schanfuß 1915: 1204; Schaum 1859: 95, 1862: 100; Schedl 1971f: 148, 1980a: 3, 1981b: 43; Scheyrew 1890c: 469; Schilsky 1909: 156; Schwerdtfeger 1981: 187; Seidlitz 1872: 390, 1891a: 557, 1891b: 602; Sokanovskii 1966: 351; Stark 1926a: 331, 1926b: 101, 1926g: 153, 1927b: 85, 1952: 105; Stein 1865: 113; Stein & Weise 1877: 164; Stephens 1829a: 146, 1830: 362; Stierlin 1895: 436; Stierlin & Gautard 1871: 294, 1906: 205; Sturm 1826: 194, 1843: 229; Tocchi 1965b; Thomson 1865: 375; Townson 1803: 192; Tredl 1907: 6; Tressens 1952: 89; Tschorbadjiev 1929: 154; Villa & Villa 1833: 26; Westhoff 1852: 238; Wichmann 1927a: 49. (tx) Acatay 1943a: 56–57; Acloque 1896; Apel 1953; Bach 1854; Balachowsky 1944b: 13–15, 1949a: 69; Barley 1901: 16, 37; Bedel 1855b: 357, 406; Bertolini 1872; Brancsik 1871; Butovitsch 1929: 7, 30; Castelnau 1840; Chapuis 1869: 54, 1873: 262; Chapuis & Candeze 1853; Chevrolat 1838; Chorbadzhiev 1924d; Csiki 1906; Dejean 1821, 1825; Desbrochers 1891; Dombrowsky 1857, 1892; Duftschmidt 1825: 107; Eggers 1929c: 43; Eichhoff 1851a: 40, 152–153, 1853a: 105, 129; Endrodi 1957b; Erichson 1836: 58; Escherich 1923b: 475, 497; Everts 1903: 740, 1922: 637; Fabricius 1757: 37, 1792: 367, 1801: 395; Fauvel 1859; Formanek 1907: 9; Girard 1873; Gmelin 1790: 1602; Grune 1979: 36–37; Gyllenhal 1813: 345, 1827: 620; Hagedorn 1910a: 123; Henschel 1895a: 157; Herbst 1793: 127; Houlbert 1922a: 7; Iablokoff-Khnzorian 1961: 85; Illiger 1907: 321; Jablonsky 1785: 127; Jacentkovsky 1935: 15; Karpinski & Strawinski 1948: 153; Kugelann 1794: 526; Kulnt 1913: 1048; Lacordaire 1866: 387; Letzner 1844: 64, 1891: 374; Lucht 1957: 275; Luigioni 1929: 990; Michalski 1959b: 161, 1962a: 53–57, 1962b: 202, 273–276, 1967: 311–312, 1973a: 75–78, pl. 22; Nürnberg 1954: 89–92; Olivier 1795b: 6; Orest 1926b: 51–57; Panzer 1795a: 256; Paykull 1800: 152; Perris 1877a: 414; Pfeffer 1932b: 10, 1955a: 79–80, 86, 1959a: pl. 5; Portevin 1935: 309; Postner 1974: 384; Quaschik 1953: 35; Ratzeburg 1837: 186–187, 1839: 228; Redtenbacher 1849a: 361, 1849b: 27, 1858: 838, 1874: 372; Reitter 1894a: 41, 1913a: 17–18, 1916: 271; Rhumbler 1927: 285; Rupertsberger 1880: 227; Sahlberg 1836: 141; Schedl 1934f: 1632, 1948b: 37, 1952f: 86, 1980a: 3, 1981b: 43; Scheyrew 1889a: 22, 1893a: 111–113, 1893b: 64–69; Schmidt, C. 1980: 27; Seidlitz 1872: 390, 1891a: 557, 1891b: 602; Sokanovskii 1966: 351–353; Spessittsev 1913a: 34, 39, 1921a: 316; Stark 1952: 105–106; Stephens 1829a: 146, 1830: 362; Stierlin 1895: 436; Thomson 1865: 375; Wichmann 1916: 13–14. (ms) Escherich 1932b; Hartig 1834: 218.
- noxius* Ratzeburg 1837: 157 (*Eccoptogaster*). Syn- types, sex?, not stated, presumably Germany; not given. Synonymy: Schedl 1945b: 37.
- References: (hb) Dombrowsky 1892; Ratzeburg 1837: 187, 1839: 230. (ds) Calwer 1854, 1893; Ganbil 1849: 127; Gemminger & Harold 1872: 2695; Kraatz 1869: 59; Lacordaire 1866: 387; Ratzeburg 1837: 187, 1839: 230; Redtenbacher 1855: 838, 1874: 373; Reitter 1869b: 154; Schamm 1859: 95, 1862: 14; Schilsky 1909: 186; Stein 1865: 114; Stein & Weise 1877: 164; Sturm 1843: 229. (tx) Bach 1854; Balachowsky 1949a: 69; Butovitsch 1929: 6; Dombrowsky 1892; Lacordaire 1866: 387; Letzner 1891: 374; Ratzeburg 1837: 157, 1839: 230; Redtenbacher 1849a: 792, 1849b: 27, 1855: 838, 1874: 373; Schedl 1948b: 37.
- armatus* Comolli 1837: 37. Syntypes, sex?, Novocomi Prov., northern Italy; not given. Synonymy: Balachowsky 1949a: 69.
- References: (hb) Dombrowsky 1892. (ds) Blanchere & Robert 1859; Calwer 1854, 1893; Ganbil 1849: 127; Gemminger & Harold 1872: 2695; Kraatz 1869: 59; Lacordaire 1866: 387; Redtenbacher 1874: 373; Schamm 1859: 95, 1862: 101; Schilsky 1909: 186; Stein & Weise 1877: 164; Stierlin & Gautard 1871: 294. (tx) Balachowsky 1949a: 69; Bertolini 1872; Comolli 1837: 37; Dombrowsky 1892; Fauvel 1857; Lacordaire 1866: 387; Letzner 1891: 374; Redtenbacher 1874: 373; Schedl 1948b: 37.
- quadriscopiosus* Say 1824: 323. Holotype ♂; Mis- souri [USA]; Say Collection, lost.

Figures: Blackman 1922b:pl. 3, figs. 17, 20–22, Bright 1976d: 28, White 1983: 324.

Distribution: North America (Ontario, Quebec in Canada/ Alabama, Connecticut, Delaware, District of Columbia, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maryland, Michigan, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia, Wisconsin in USA).

Hosts: *Carya* spp.

Notes: (3) Blackman 1934: 16 (re-described).

References: (ay) Butovitsch 1929: 36–37; Goeden & Norris 1964b, 1965b; Hopkins 1894g; Stickney 1921: 15. (bv) Gilbert & Norris 1968; Goeden & Norris 1963, 1964a: 141, 1964b: 743, 1965b; Kozłowski 1969: 121; Raffa & Berryman 1982b: 98; Roling & Kearby 1975b, 1977; Vite & Pitman 1967. (cn) Anderson, R. F. 1960: 238; Anonymous 1966f, 1967f, 1968g, 1985k: 26, 1987d: 19; Baker, W. L. 1972: 237; Beal et al. 1952: 51–52; Beeson 1918; Blackman 1950; Britton 1901: 267, 1902, 1911, 1912: 341, 1913: 3, 1914: 181, 1915: 198, 1920b, 1933: 117, 1934: 1, 162; Britton & Walden 1914: 237; Bromley 1939: 41–42, 1944a; Chamberlin 1924; Craighead & Middleton 1930; Davis 1930: 21–22, 1938: 17, 1940: 17–18, 1952: 18, 1954: 18; Doane et al. 1936; Drooz 1985: 355; Ebel, Merkel, & Kowal 1968; Elliot & Mobley 1938; English 1958: 36; Epstein 1959; Felt 1910: 103, 1912: 110, 1913: 63, 1914: 374, 1915: 33, 1916: 15–88, 336, 574, 1918: 67, 1923: 87, 1924: 49, 1926: 49, 247, 1929: 43–48, 1932: 44, 1934 (edition of 1930a): 195–200, 1934b, 1935: 233, 1942: 8; Felt & Bromley 1930: 15, 1931: 437, 1932: 298; Felt & Rankin 1932: 24, 219, 257; Flint & Farrar 1940: 26–28; Gardner 1941: 21; Goeden & Norris 1964b: 64–65, 1964c, 1965b: 249–252; Gossard 1905a: 309; Headlee 1914: 349, 1915, Herrick 1935: 112; Hetrick 1949b; Hofaker, Loomis, & Tucker 1987; Hopkins 1898a: 105, 1899b: 15, 1902d: 24, 1904a: 41, 1906c: 632, 1907: 163, 1908c: 163, 1909c: 60, 78, 1910f: 3, 1910g: 60, 78, 1911: 1, 1912c; Hough 1878: 162, 1882: 273; Houser 1918: 320, 1946: 36; Johnson 1897: 345–364; Kotinsky 1921: 72; Kowal 1959b: 162; Lebaron 1872: (10 Aug.), 1874: 146; Levison 1909: 363, 1915: 797, 1940: 217–219; Lindquist, O. H. & Syme 1981: 100; Loomis 1913: 446; Loomis, Hofacker, & Tucker 1986; Lugger 1899a: 304; Mattson & Haack 1987; McDaniel 1933: 22–25, 1940: 243–245; Merkel & Kowal 1956: 7; Metcalf & Flint 1928: 670, 1939: 718, 1951: 797; Middleton 1928a: 375, 1928b: 422, 1929: 23; Osborn 1896: 594, 1897: 291–293; Packard 1890: 294; Pettit 1930: 217, 1931: 15, 1933: 231; Pierson 1927: 71; Pirone 1941: 311–312; Pirone, Dodge, & Rickett 1960: 246; Porter 1932: 79–80; Riley 1867: 68–69, 1873: 105, 1875: 105, 1880a: 58, 1880b: 298; Roling & Kearby 1977; Saunders 1883: 51;

Schwarz 1932: 111; Smith, J. B. 1895b: 298, 1900: 363, 1912: 84; Solomon & Payne 1986; Swaine 1918a: 52; Thomas 1876: 145; Vajda 1952: 121; Walsh 1867b: 57–58. (ec) Ashmead 1893b; Ashraf & Berryman 1969: 13; Blackman 1924: 135–143; Blackman & Stage 1924: 11; Burks 1959; Bushing 1965: 466; DeLeon 1934b; Felix, Uhrenholdt, & Parneter 1971: 1697; Felt 1906: 275, 1915: 8, 33; Goeden 1966; Goeden & Norris 1964b, 1965b; Hetrick 1949b; Hopkins 1891b: 258; Houser 1931: 658; Marsh 1979: 150; Matthews 1970; Mattson & Haack 1987; Metcalf & Flint 1928: 670, 1939: 718, 1951: 797; Pierce 1908: 387; Powell, J. M., Wong, & Melvin 1972: 15; Richerson, J. V. & Borden 1972a; St. George 1929b: 573, 1930: 826; Thompson, W. R. 1965: 27; Thompson, W. R. & Simmonds 1964: 36; Vitzthum 1926: 451; Wilson, M. C., Schuder, & Provonsa 1982: 66. (hb) Anderson, R. F. 1960: 238; Anonymous 1985k: 26; Baker, W. L. 1972: 237; Beal & Massey 1945: 65–70; Bird 1913: 123–126; Blackman 1922b: 44–47, 1924: 460, 1950; Blackman & Ellis 1915, 1916: 26, 78; Bright 1976d: 33; Britton 1902, 1913, 1924: 166; Chamberlin 1939: 235; Chittenden 1890; Dillon & Dillon 1961: 805; Doane et al. 1936; Drooz 1985: 355; Deyrup & Atkinson 1987a: 65; Felt 1906: 275, 1915: 8, 33, 1926: 49, 247; Felt & Rankin 1932: 24, 219, 257; Gagne & Kearby 1979b; Goeden 1966; Goeden & Norris 1964b: 743, 1964c: 771, 1965a, 1965b; Herrick 1935: 112; Hopkins 1892: 258, 1893: 134, 280, 1894g, 1899a: 344, 1899b: 15, 1904a: 41, 1904b: 314, 1907a, 1912c; Houser 1918: 320; Klages 1896: 11–12; Kotinsky 1921: 72; Kozłowski 1969: 121; Lugger 1899a: 304; Lutz 1918: 405; McDaniel 1933: 22, 1940: 243; Metcalf & Flint 1928: 670, 1939: 718, 1951: 797; Osborn 1896: 594; Packard 1890: 294; Pierce 1907: 292; Pierson 1927: 71; Rhoades 1924: 135–143; Schwarz 1901b: 344; Smith, J. B. 1886: 127, 1895a: 294, 1895b: 465–474, 1912: 84; Solomon & Payne 1986; St. George 1929: 573–580; Swaine 1918a: 52; Vitzthum 1926: 407–503; White, R. E. 1983; Wood, S. L. 1982b: 429. (ds) Anderson, R. F. 1960: 238; Anonymous 1926c: 514, 1966f, 1967f, 1968g; Atkinson et al. 1991: 157; Beal & Massey 1945: 67–70; Beaulne 1941; Bird 1919; Blackman 1922b: 44–47, 1924: 460, 1950; Blackwelder 1939; Blatchley & Leng 1916: 588; Bright 1976d: 33; Britton 1920a; Butovitsch 1929: 9, 36–37; Chamberlin 1939: 235; Chittenden 1890; Clarke 1913: 264; Craighead & Middleton 1930; Deyrup 1981b: 5; Deyrup & Atkinson 1987a: 65, 1987b: 68; Dodge 1938: 21–22; Drooz 1985: 355; Felt 1915: 8, 33, 1926: 49, 247, 1930a: 247; Felt & Rankin 1932: 24, 219, 257; Frost & Dietrich 1929; Gemminger & Harold 1872: 2696; Goeden & Norris 1964a, 1964b, 1965a, 1965b; Hagedorn 1910d: 87; Hamilton 1891: 130, 1895a: 378; Harrington 1884a; Henshaw 1885: 148; Hill, D. S. 1987: 337; Hoffman 1942: 12;

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carya Riley 1867: 68. Syntypes, sex?; Princeton, Illinois [USA]; not given. Synonymy: LeConte 1876: 371.

References: **(cn)** Riley 1867: 68–69, 1873: 103–108, 1881: 54; Walsh 1867b: 58. **(ds)** Leng 1920: 337. **(tx)** Blackman 1934: 4; Butovitsch 1929: 9; Swaine 1868: 166, 1876: 371; Riley 1867: 68; Swaine 1909: 105–106.

caryae Walsh 1867: 58. Syntypes 4 ♀; Princeton, Illinois [USA]; not given. Synonymy: LeConte 1876: 371, Wood 1982b: 429.

References: **(ds)** Gemminger & Harold 1872: 2695; Swaine 1909: 105. **(tx)** LeConte 1876: 371; Swaine 1909: 105; Walsh 1867: 58; Wood, S. L. 1982b: 429.

querci Yin & Huang 1980: 50, 53. Holotype ♂; Szechwan: Markang, 2600 m; IZAS, Beijing. Figures: Yin & Huang 1980: 51.

Distribution: Asia (Sichuan, Yunnan in China).

Hosts: *Quercus gilliana*, *Q. semicarpifolia*.

References: **(ds)** Yin, Huang, & Li 1984: 35. **(tx)** Yin & Huang 1980: 50, 51, 53; Yin, Huang, & Li 1984: 35.

ratzeburgi Janson 1856: 87. Syntypes, sex?; Rannoch, Perthshire, England; IRSNB, Brussels.

Figures: Grune 1979: 34, Michalski 1973a: pl. 23a, 23b, Pfeffer 1989a: pl. 5, Yin, Huang, & Li 1984: 30.

Distribution: Asia (Heilongjiang in China/ Japan/ Korea/ E USSR), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxembourg/ Netherlands/ Norway/ Poland/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Betula* spp.

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- amurensis* Eggers 1908: 144 (*Eccoptogaster*). Lectotype ♂; Sibiria orientalis (Amur sup.); USNM, Washington, designated by Anderson & Anderson 1971: 4. Synonymy: Schedl 1948b: 49.
- References: **(ay)** Butovitsch 1929: 6, 47. **(cn)** Arnoldi et al. 1955: 649; Kurenzov 1935c: 193, 1956a: 87. **(cc)** Halperin & Holzschuh 1984: 22; Kurenzov 1934a: 53. **(hb)** Halperin & Holzschuh 1984: 22; Kurenzov 1935a: 19, 21, 1948b: 1, 116; Stark 1952: 119; Yin, Huang, & Li 1984: 29. **(ds)** Butovitsch 1929: 6, 47; Hagedorn 1910d: 83; Halperin & Holzschuh 1984: 22; Kleine 1913b: 151, 1914b: 24, 1934a: 53, 1935a: 19, 21, 1935c: 193, 1936a: 110, 1938a: 60, 1957b: 15; Krivolutskaia & Kupyanskaya 1970; Kurenzov 1938a: 60, 1951b: 15; Sokanovskii 1966: 383; Stark 1952: 119; Yin, Huang, & Li 1984: 29. **(tx)** Anderson, W. H. & Anderson 1971: 4; Balachowsky 1949a: 70; Butovitsch 1929: 6, 47; Eggers 1908: 144, 1914, 1922c: 14–15; Hagedorn 1910a: 123; Krivolutskaia 1958: 113–115; Kurenzov 1941a: 83–84, 1948b: 116; Reitter 1913a: 16–17; Schedl 1934f: 1633, 1948b: 49; Sokanovskii 1954: 14, 1960: 676, 1966: 383; Stark 1952: 119; Yin & Huang 1980: 47; Yin, Huang, & Li 1984: 29.
- sahlbergi* Eggers 1912c: 204 (*Eccoptogaster*). Lectotype ♂; Dauria (Sibiria orient.); USNM, Washington, designated by Anderson & Anderson 1971: 29. Synonymy: Kolosov 1931: 118.
- References: **(ds)** Kleine 1913b: 152, 1914b: 250; Sokanovskii 1966: 383. **(tx)** Anderson, W. H. & Anderson 1971: 28; Balachowsky 1949a: 70; Butovitsch 1929: 8; Eggers 1912c: 204–205, 1914: 298; Endrodi 1957: 419; Kolosov 1931: 118; Reitter 1913a: 16–17; Schedl 1934f: 1633, 1948b: 49; Sokanovskii 1966: 383.
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lineatus Kurenzov 1941a: 104, 226. Lectotype ♀; Ussuri "Terney district"; IZL, Leningrad, designated by Michalski 1968b: 191. Synonymy: Michalski 1968b: 191.

References: (bv) Du 1987. (hb) Stark 1952: 145. (ds) Sokanovskii 1966: 390; Stark 1952: 145. (tx) Kurenzov 1941a: 104, 126; Michalski 1968a: 111, 1968b: 191; Schedl 1948b: 32; Sokanovskii 1966: 390; Stark 1952: 145.

reflexus Blackman 1934: 13. Holotype ♂; Santa Catalina Mts., Arizona [USA]; USNM, Washington. Figures: Edson 1967: 39 (adult), 56 (galleries).

Distribution: North America (Chihuahua, Durango, Nuevo Leon in Mexico/ Arizona, Colorado, New Mexico, Wyoming in USA).

Hosts: *Pseudotsuga menziesii*.

References: (cn) Doane et al. 1936; Keen 1952c: 160; Schuder 1969: 81. (hb) Doane et al. 1936; Edson 1967: 8; Keen 1952c: 160; Wood, S. L. 1982b: 434. (ds) Atkinson & Equihua 1988: 100; Blackwelder 1939; Edson 1967: 8; Furniss, R. L. & Carolin 1977: 404; Keen 1952c: 160; Schuder 1969: 81; Snow 1881: 70, 1883: 44; Wood, S. L. 1982b: 434. (tx) Blackman 1934: 13; Chamberlin 1939: 227; Edson 1967: 8, 39; de Rnette 1970: 113; Wood, S. L. 1977c: 388, 1982b: 434.

wickhami Blackman 1934: 13. Holotype ♂; Buena Vista, Colorado [USA]; USNM, Washington. Synonymy: Wood 1977c: 388.

References: (hb) Chamberlin 1939: 227; Edson 1967: 15. (ds) Blackwelder 1939; Chamberlin 1939: 227; Edson 1967: 15; Furniss, R. L. & Carolin 1977: 404. (tx) Blackman 1934: 13; Chamberlin 1939: 227; Edson 1967: 15, 44; de Rnette 1970: 113; Wood, S. L. 1977c: 388.

robustus Blackman 1934: 19. Holotype ♂; Prescott, Arizona [USA]; USNM, Washington.

Figures: Edson 1967: 48 (adult), 57 (galleries).

Distribution: North America (Arizona, Colorado, E Nevada, New Mexico, Utah in USA).

Hosts: *Abies concolor*.

References: (cn) Doane et al. 1936. (cc) Kim 1971. (hb) Chamberlin 1939: 229; Doane et al. 1936; Edson 1967: 21; Wood, S. L. 1982b: 437. (ds) Blackwelder 1939; Chamberlin 1939: 229; Edson 1967: 21; Furniss, R. L. & Carolin 1977: 404; Wood, S. L. 1982b: 437. (tx) Blackman 1934: 8–19; Chamberlin 1939: 229; Edson 1967: 21, 48; de Rnette 1970: 113; Wood, S. L. 1982b: 437.

rugulosus (Muller) 1818: 247 (*Bostrichus*). Synonyms, sex?, Odenbach, Germany; 1 at IRSNB, Brussels, many at ZIFH, Eherswalde. Figures: Balachowsky 1949a: 56, 58, Michalski 1973a: pl. 43, Pfeffer 1989a: pl. 5, Yin, Hunag, & Li 1984: 38.

Distribution: Africa (Algeria/ Morocco/ Tunisia), Asia (Xinjiang in China/ India/ Iran/ Israel/ Pakistan/ Syria/ Turkey/ E USSR), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Cyprus/ Czechoslova-

kia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Ireland/ Italy/ Luxembourg/ Netherlands/ Norway/ Poland/ Portugal/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), North America (introduced into: Durango in Mexico/ all provinces in Canada/ all states in United States), South America (introduced into: Argentina/ Peru/ Uruguay).

Hosts: *Malus* spp., *Pyrus* spp., *Prunus* spp., *Amelanchier* spp., *Crataegus* spp., *Sorbus* spp., *Cotoneaster* spp., *Cydonia oblonga*, *Mespilus* sp. Notes: (3) Schedl 1948b: 12 (*pomorus* Bedel, nomen nudum, synonymy), Michalski 1973a: 96 (described var. *bucharicus*, no status in nomenclature).

References: (ay) Butovitsch 1929: 9, 51–57; Chararas, Katoulas, & Koutroumpas 1982; Escherich 1923b: 478, 513; Fisher 1954; Cahán 1900; Hopkins 1894g; Payne et al. 1973; Scherb 1971; Schneider-Orelli 1913: 27; Scholz 1905: 144; Thomas, J. B. 1967; Ting 1936: 95. (bv) Chararas 1980b: 561; Grune 1979: 39; Hellen 1921; Kirkendall 1984: 241; Majernik 1960; Michalski 1959c: 167, 1961d; Nickle 1971; Nuorteva 1956c: 94. (cn) Acatay 1943a: 58; Aclouque 1914; Alden 1930: 31; Alderman, Gibbings, & Rumsey 1913: 30, 35; Ammand 1948: 11–12, 1950: 24; Anonymous 1920: 35, 1926b: 17, 1951: 30, 1960q, 1960s, 1961e, 1961j, 1961r, 1962j, 1962z, 1963j, 1963n, 1963y, 1964j, 1964u, 1965b, 1965d, 1965r, 1966b, 1966p, 1966u, 1967d, 1968d, 1968p, 1969d, 1969m, 1970d, 1970m, 1971c, 1972d, 1973a, 1974c, 1975c, 1977c, 1979a, 1979s; Anthon 1947: 193–195, 1949: 205–206, 854, 1957; Anthon et al. 1950: 23–24; Armitage 1947: 204; Armitage et al. 1947: 204; Armstrong 1949: 7–8; Armstrong & Boyce 1958: 1, 5–6; Atkinson et al. 1986: 74–75; Ayomtantis 1953: 13; Baker 1898: 25–37; Balachowsky 1951, 1963a: 1256; Balachowsky & Mesnil 1935: 18–21; Baldwin 1912: 97, 1914: 16, 1916: 131; Barbey 1902: 164, 1925: 549; Beach 1899: 381–445; Beal & Massey 1945: 66–67; Becker 1912: 29, 1913: 29; Bentley 1930: 92; Berlese 1915; Bethune 1907: 18, 1909: 32; Bissell & Firor 1947: 25; Blackman 1950; Blair 1937: 170; Bogue 1897: 22; Borcea 1930: 270; Borg 1933, 1935: 3, 43–46; Borodin 1915: 87; Boyd 1945: 131–132, 1953: 159–160; Brandt 1952, 1957; Brannon 1925: 6; Bricht 1943: 54–55; Britton 1897: 234–245, 1931: 502, 1933: 138, 1934: 156; Britton & Zappe 1927: 133–134; Brooks 1916: 3; Brown et al. 1935: 5, 1938: 4, 1942: 4; Bruner 1899; Brunson 1929: 11, 18; Buckley 1911: 3, 5; van Buren & Husted 1911: 451; Burgess 1906: 658, 1907: 18; Burke 1932: 368–369; Butz 1897: 21–28; Caesar 1908: 110, 1909: 13, 1910: 18, 1914: 25–31, 51, 1921: 145, 1930; Campbell 1936: 10; Canela 1921: 253–256; Chabrolin 1929: 365–366; Chamberlin 1924; Chamberlin & Dustan 1954: 27–28, 1967: 29–30; Chandler 1909: 360, 1912: 251, 1913: 53, 1939: 33–36, 1950: 18–19; Chandler &

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(ds) Acloque 1896, 1914; Adeli 1972: 14; Ammann & Knabl 1913; Anonymous 1926c: 514, 1961r, 1962j, 1962z, 1963j, 1963y, 1964j, 1964n, 1965b, 1965d, 1965r, 1966b, 1966p, 1966u, 1967d, 1968d, 1968p, 1969d, 1969m, 1970d, 1973a, 1975c, 1977c, 1979a, 1979s; Andras & Schaefer 1957; Bach 1849c; Balachowsky 1944b, 1951, 1963a: 1256; Balazy & Michalski 1960; Balbi 1944; Barthe 1896; Bau 1888; Beal & Massey 1945: 66–67; Beaulne 1956; Bedel 1888b: 388, 406; Beffa 1949; Bejer-Petersen & Jorum 1977: 6; Bielz 1851, 1857; Blackman 1922b: 43–44, 1950; Blackwelder 1939, 1947; Blanchere & Robert 1889; Blatchley & Leng 1916: 590; Borchert 1951; Brakman 1966b: 203; Brancsik 1871, 1906; Bright 1976d: 29, 1987a: 2; Bright & Stark 1973: 14; Britton 1920a; Bruch 1914a; Buck 1955b: 191; Budkov 1897; Buresh & Lazarov 1956; Butovitsch 1929: 9, 51–57; Calwer 1884, 1893; Carpentier & Delaby 1908; Chamberlin 1939: 225, 1958: 58; Champion 1894; Chandler & Flint 1935a; Chapman 1869: 121–131, 1870b, 1900: 77; Chapuis

- 1869: 60, 1873: 268; Chapuis & Candeze 1853; Chittenden 1890, 1893: 250, 1898b, 1899b, 1902, 1903, 1909; Chorbadzhievo 1924d, 1929; Chrystal 1937; Conradi 1906; Costa Lima 1956; Crotch 1863; Currie 1905; Dallimore & Munro 1922: 189–193; Debatisse 1945; Deyrup 1981b: 5; Dodge 1938; Drooz 1985: 356; Dzhambazhshvili 1961b; Ebeling 1950, 1959; Eder 1934; Eggers 1904; Endrodi 1958a, 1958b, 1981: 184, 1986: 217; Ericson & Sandin 1893; Escalera 1919; Escherich 1923b: 478, 513; Essig 1915a: 309, 1915b, 1926: 510, 1958: 510; Esterberg 1928, 1959; Evans 1952: 141; Everts 1900, 1922: 637, 1925; Eyquem 1891; Fairmaire 1880a; Farahbakhsh 1964; Favre 1890; Felt 1926: 324, 1930a: 324; Felt & Rankin 1932: 369, 420; Forster 1849: 440; Fowler 1891; Frost & Dietrich 1929; Fuchs 1904a, 1905a, 1905c: 340; Furniss, M. M. 1978; Furniss, R. L. & Carolin 1977: 404; Garman et al. 1953: 35; Gast et al. 1989: 385; Gaubil 1849: 127; Gehin 1857a: 392; Gemminger & Harold 1872: 2696; Gentry, J. 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(tx) Acloune 1896; Bach 1854; Balachowsky 1944b: 4, 1949a: 56–57, 1963a: 1256, 1260; Barbey 1901: 16, 39; Bargagle 1884: 93; Beal & Massey 1945: 66–67; Bedel 1888b: 388, 406; Belfa 1949, 1961; Benoit 1986: 238; Bertolini 1872; Blackman 1922b: 43–44, 1934: 5–6, 10; Blatchley & Leng 1916: 590; Boheman 1859: 88–89; Brancsik 1871; Bright 1976d: 28, 29; Butovitsch 1929: 9, 51–52; Carpentier & Delaby 1908; Chamberlin 1939: 225, 1958: 43; Chapuis 1869: 60, 1873: 268; Chapuis & Candeze 1853; Chorbadzhievo 1924d; Comstock

- 1945; Costa Lima 1956; Csiki 1906; Davidson & Lyon 1979: 374; Desbrochers 1891; Dillon & Dillon 1961: 801; Dodge 1938: 20–21; Dombrowsky 1887, 1892; Duffy 1953; Edwards 1959; Eggers 1911a, 1922c: 13, 1922d: 121, 1923b: 134, 1931a: 16, 1931b: 184, 1932c: 24, 1933b: 13, 1941c: 123; Eichhoff 1864b: 32, 1881a: 41, 157, 1883a: 105, 130; Endrodi 1957b; Escherich 1923b: 478, 513; Escherich & Escherich 1897; Everts 1903: 741, 1922: 637; Fauvel 1889; Ferrant 1911; Formanek 1907: 10; Girard 1873; Goble 1956: 39; Grigorovich 1960: 37; Grune 1979: 38–39; Hagedorn 1910a: 124; Hansen, V. 1956, 1964: 457; Henschel 1876a: 202, 242, 1895a: 156; Hoffmann 1935: 84, 87, 1939; Hopkins 1915c: 188–189, 203; Houlbert 1922a: 5; Jablonsky-Khazorian 1961: 71; Jacques 1951: 345; Johnson, W. T. & Lyon 1976: 217; Judeich & Nitsche 1895: 444; Kalina 1970: 128; Karpinski & Strawinski 1948: 153; Keen 1929a: 13; Keler 1928: 15; Knotek 1892a: 36; Kuhnt 1913: 1049; Kulnisch 1965: 135–138; Lacordaire 1866: 387; LeConte 1878b: 626; Letzner 1846: 78, 1891: 374; Leunis 1886: 183; Lezhava 1940: 71–72, 1943: 193–194; Lindemann 1881b: 171; Lindquist, O. H. & Syme 1981: 100; Lomnicki 1913b: 147; Lovendal 1889b: 49, 1898: 64; Lucht 1987: 275; Luigioni 1929: 990; Lunardon & Leonardi 1889: 453; Lutz 1918: 405; Maknovskii 1966: 91; Michalski 1959c: 169–172, 1961d: 57–59, 1968b: 194–195, 1973a: 126–130, pl. 43; Muesebeck 1942: 100, 1950: 137; Muller 1818: 247; Negru 1966b: 398; Nordlinger 1848: 254, 1856: 44; Nunberg 1929c: 114, 1930: 200, 1947: 29, 1954: 91; Panzer 1793: fig. 11; Perris 1877a: 414; Pfeffer 1932b: 11, 1942a: 16, 1955a: 78–79, 1989a: pl. 5; Porter 1932: 106; Portevin 1935: 311; Postner 1974: 387; Powell, J. A. & Hogue 1979: 313; Quaschik 1953: 35; Ratzeburg 1837: 186, 1839: 230; Redtenbacher 1849a: 361, 1849b: 27, 1858: 838, 1874: 373; Reitter 1894a: 43, 1913a: 22, 1916: 272; Rey 1892b: 30; Rumbler 1922: 274, 1927: 285; Rupertsberger 1880: 228; Schaum 1859: 95, 1862: 100; Schedl 1934f: 1632, 1937b: 158, 1939d: 412, 1939j: 564, 1939m: 169–171, 1947c: 62, 1948b: 12, 1948d: 36, 1950d: 16, 1951d: 16, 1952a: 444–445, 1952f: 86, 1952h: 67, 1957: 616, 1959: 36, 1962p: 201, 1964: 97, 1967: 68–74, 1972d: 130, 1980a: 3, 1981b: 40; Scherb 1971; Scheyrew 1893a: 88, 90, 1893b: 120–121; Schimitschek 1955c: 73; Schmidberger 1837: 270–273; Schwartz 1975b: 25; Seidlitz 1872: 390, 1891a: 557, 1891b: 603; Semenov 1902: 268; Sokanovskii 1930: 803, 1936: 73, 1954: 15, 1958: 37, 1960: 675–676, 1966: 390; Spessivtsev 1913: 41, 1921: 315, 1922a: 458, 1925a: 153, 1931: 29–30; Stark 1952: 138–139; Stierlin 1898: 436; Swaine 1909: 106–107, 1910a: 33, 58, 1918a: 52; Taschenberg 1880: 240, 246, 1901: 107; Thomas, J. B. 1967; Thomson 1865: 376, 1868: 224; Titus, Meikle, & Harrison 1955: 116; Wood, S. L. 1951a: 127, 1972a: 396, 1977a: 72, 1982b: 424; Yin & Huang 1980: 48; Yin, Huang, & Li 1984: 37. (**ms**) Balachowsky 1963a: 1256; Essig 1931: 884; Gotz 1877; Hatch 1938: 192; Heinemann 1908a; Hellen 1921; Hopkins 1893c: 63; Klimesch 1914c: 59; Merino-Rodriguez 1966: 42; Parrott 1935: 6; Popenoe 1899, 1906: 987; Schvester 1960; Swaine 1907: 191, 1912b: 141.
- punctatus* Ratzeburg 1837: 187 (*Eccoptogaster*).
 Syntypes, sex²; Germany; not given. Synonymy: Schedl 1948b: 12.
 Notes: (1) Cited in synonymy, never validated, no status in nomenclature.
 References: (**tx**) Hopkins 1915c: 220; Ratzeburg 1837: 187; Schedl 1948b: 12.
- haemorrhous* Schmidberger 1837: 270. Syntypes, sex²; Europe; not given. Synonymy: Ratzeburg 1837: 187, Schedl 1948b: 12.
 References: (**cn**) Froggatt 1899; Kollar 1840: 263; Walsh 1867b: 58. (**hb**) Dombrowsky 1892; Froggatt 1899; Kollar 1840: 263. (**ds**) Chapuis & Candeze 1853; Perris 1876a, 1877a: 414; Schaum 1859: 95, 1862: 100; Stein 1868: 114; Stein & Weise 1877: 164; Sturm 1826: 194; Villa & Villa 1833: 26. (**tx**) Balachowsky 1949a: 56; Butovitsch 1929: 9; Chapuis & Candeze 1853; Dombrowsky 1892; Letzner 1891: 374; Perris 1877a: 414; Ratzeburg 1837: 187; Schedl 1948b: 12; Schmidberger 1837: 270; Villers 1789: 215.
- assimilis* Boheman 1858: 88. Syntypes, sex²; Buenos Aires, Argentina; NHR, Stockholm. Synonymy: Schedl 1962p: 201.
 References: (**ay**) Butovitsch 1929: 6. (**cn**) Kleine 1932a: 304; Pierce, W. D. 1917: 175. (**cc**) Lima & DaCosta 1962: 249; Tudor 1969: 34. (**hb**) Kleine 1932a: 304; Viana 1964: 129. (**ds**) Blackwelder 1947; Bruch 1914a; Butovitsch 1929: 6; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 83; Kleine 1913b: 151, 1914b: 333, 1932a: 304; Lacordaire 1866; Pierce, W. D. 1917: 175; Viana 1964: 129. (**tx**) Boheman 1858: 88; Butovitsch 1929: 6; Eggers 1931a: 16; Hagedorn 1910a: 123; Lacordaire 1866; Schedl 1937h: 155–155, 1962p: 201.
- fauveli* Reitter 1894a: 43. Syntypes, sex²; Caucasus, Armenien, Persien; NHMB, Budapest. Synonymy: Michalski 1973a: 127.
 Notes: (1) Originally listed as a variety, but treated incorrectly by some authors as a subspecies of *rugulosus*.
 References: (**ds**) Negru 1968c: 91; Reitter 1894a: 43, 1916: 349; Sokanovskii 1966: 390. (**tx**) Eggers 1922d: 121; Michalski 1973a: 127; Reitter 1894a: 43, 1916: 349; Schedl 1934f: 1632, 1948b: 12; Sokanovskii 1966: 390.
- mediterraneus* Eggers 1922d: 121 (*Eccoptogaster*).
 Lectotype ♂; Adana, Asia Minor; USNM, Washington, designated by Anderson & Anderson 1971: 19. Synonymy: Schedl 1948b: 12.

- Notes: (3) Balachowsky 1949a: 57 (treated as a good species).
- References: (ay) Butovitsch 1929: 8, 57–58. (bv) Ascher & Gurevitz 1972; Chararas 1980b: 561; Chararas et al. 1982: 1094; Gurevitz & Ascher 1973; Gurevitz & Ishaaya 1972; Levy et al. 1974. (cn) Ascher et al. 1975; Balachowsky 1951, 1963a: 1259; Gentry, J. W. 1965: 90; Grandi 1951; Greckin 1956: 1483; Pelekassis 1962; Talhouk 1976. (cc) Fischer 1962: 299; Fry 1989: 18; Gurevitz 1976; Heqvist 1967: 69. (hb) Balachowsky 1963a: 1259; Chodjai 1963: 139; Grandi 1951; Greckin 1956: 1483; Gurevitz 1975, 1976; Stark 1952: 138; Talhouk 1976. (ds) Ayoutantis et al. 1953: 13; Balachowsky 1951, 1963a: 1259; Butovitsch 1929: 8, 57–58; Gentry, J. W. 1965: 90; Halperin 1969: 333; Kobakhidze 1957: 177; Kleine 1934a: 169; Luigioni 1929: 990; Mahnovskii 1958: 65; Normand 1949: 104; Pelekassis 1962; Pfeffer 1947d: 126; Sokanovskii 1966: 390; Stark 1952: 138. (tx) Anderson, W. H. & Anderson 1971: 19; Balachowsky 1949a: 55–57, 1963a: 1259–1260; Butovitsch 1929: 8, 57–58; Eggers 1922d: 121; Iablokoff-Khuzorian 1961: 71; Luigioni 1929: 990; Schedl 1934f: 1632, 1948b: 12; Schmidt, G. 1980: 22; Sokanovskii 1954: 15, 1966: 390; Stark 1952: 138. (ms) Ascher & Gurevitz 1972; Balachowsky 1963a: 1259.
- rugulosus similis* Butovitsch 1929: 52. Syntypes, sex?; Deutschland, Tschechoslowakien; NHR, Stockholm. Synonymy: Schedl 1948b: 12. References: (ds) Reitter 1916: 349; Sokanovskii 1966: 390. (tx) Butovitsch 1929: 52; Reitter 1916: 349; Schedl 1934f: 1632, 1948b: 12; Sokanovskii 1966: 390.
- caucasicus* Butovitsch 1929: 54. Syntypes, sex?; Dzhubga (Krasnodar Territory), USSR; NHR, Stockholm. Synonymy: Schedl 1948b: 12. References: (ds) Dzhambazishvili 1961, 1962; Sokanovskii 1966: 390. (tx) Butovitsch 1929: 54; Schedl 1934f: 1632, 1948b: 12; Sokanovskii 1966: 390.
- rugulosus samarkandicus* Butovitsch 1929: 56. Syntypes, sex?; Samarkand (Uzbekistan), USSR; NHR, Stockholm. Synonymy: Schedl 1948b: 12. References: (ds) Sokanovskii 1966: 390. (tx) Butovitsch 1929: 56; Schedl 1934f: 1632, 1948b: 12, 1958g: 165; Sokanovskii 1966: 390.
- rugulosus sanctaluciae* Hoffmann 1935: 84, 87. Syntypes, sex?; article not seen; not located. Synonymy: Michalski 1973a: 127. References: (tx) Balachowsky 1949a: 57; Hoffmann 1935: 84, 87; Michalski 1973a: 127; Schedl 1948b: 12.
- manglissiensis* Lezhava 1940: 71. Syntypes, sex?; Manglisi, Georgia, USSR; Institute of Zoology, Academy of Science, Tbilisi. Synonymy: Sokanovskii 1954: 13. References: (ds) Arnoldi et al. 1955: 655; Sokanovskii 1966: 390. (tx) Lezhava 1940: 71; Sokanovskii 1954: 13, 1966: 390.
- taxicola* Lezhava 1941: 193. Lectotype, sex?; Tsagveri prope Borzhomi, Georgia, USSR; IZL, Leningrad, designated by Michalski 1968a (cited in Michalski 1973a: 127). Synonymy: Sokanovskii 1954: 13. References: (ds) Sokanovskii 1966: 390. (tx) Lezhava 1940b: 193 (or 1943: 193–194); Michalski 1968a: 113, 1973a: 127; Sokanovskii 1954: 13, 1966: 390.
- rugulosus baluchistani* Schedl 1958g: 165. Syntypes, sex?; Baluchistan, Quetta; FRI, Dehra Dun and Schedl Collection in NHMW, Wien. Synonymy: Wood 1982b: 425. Notes: (1) Schedl reported the return of syntypes to the FRI, Dehra Dun, but all specimens sent to him are accounted for and are in the Schedl Collection in NHMW, Wien. References: (tx) Schedl 1958g: 165, 1979c: 217; Wood, S. L. 1982b: 425.
- rugulosus intermedius* Sokanovskii 1960: 675. Syntypes, sex?; Tezhkent, Uzbekistan, USSR; Sokanovskii Collection. Synonymy: Michalski 1973a: 127. References: (ds) Sokanovskii 1966: 390. (tx) Michalski 1973a: 127; Sokanovskii 1960: 675, 1966: 390.
- schevyrewi* Semenov 1902: 265. Holotype ♂; Valley of the Great Julduss, eastern Tien Shan, China; not located. Figures: Michalski 1973a: pl. 12, Yin, Huang, & Li 1984: 22. Distribution: Asia (Hebei, Heilongjiang, Henan, Ningxia, Qinghai, Shanxi in China/ Korea/ Mongolia/ E USSR). Hosts: *Ulmus* spp., *Prunus* spp., *Pyrus* sp., *Caragana* spp., *Eleagnus* sp., *Salix* sp. Notes: (3) Eggers 1910e: 35 (named variation *sinensis*, no status), Michalski 1964: 668 (named aberration *laevifrons*, no status). References: (ay) Butovitsch 1929: 31. (cn) Pfeffer 1979: 149; Yagdyev 1979. (cc) Kurenzov 1934a: 50; Lindeman 1961: 99–100; Pfeffer 1979: 149; Yang 1989. (hb) Kostin 1960: 130; Kurenzov 1935a: 20, 22, 1948b: 121; Makhmadziev & Shukronaev 1983; Stark 1952: 100. (ds) Butovitsch 1929: 31; Hagedorn 1910d: 88; Kadyrov 1988: 43–44, 1989; Kaszab 1977: 66; Kleine 1913b: 152, 1914b: 247, 251; Krivolutsкая 1983; Krivolutsкая & Kupianskaya 1970; Kurenzov 1934a: 50, 1935a: 20, 22; Michalski 1973a: 49; Sokanovskii 1960: 676, 1966: 381; Stark 1952: 100; Yanovskii & Tegshzhargal 1985: 406; Yin, Huang, & Li 1984: 22. (tx) Butovitsch 1929: 31; Eggers 1910d: 35–36, 1910e: 35, 1921: 43, 1922: 116–117, 1931: 43; Hagedorn 1910a: 124; Kurenzov 1935a: 79, 1941: 79, 1948b: 121, 1962: 31; Michalski 1964: 668, 1969c: 661, 1973a: 49–52, 1973a: pl. 12; Murayama 1930: 9;

- Reitter 1913a: 18; Schedl 1934f: 1633, 1941a: 42, 1945b: 53–54; Semenov 1902: 265–266; Sokanovskii 1954: 14, 1960: 676, 1966: 357; Stark 1952: 100–101; Tsai & Li 1959: 75; Tsai, Yin, & Huang 1962: 5–6; Wichmann 1915: 214–215; Yin & Huang 1980: 47; Yin, Huang, & Li 1984: 22.
- frankei* Wichmann 1915b: 214. Syntypes 2♂, 2♀; Vernyi (= Alma-Ata), Kazakhstan, USSR; Wichmann Collection. Synonymy: Eggers 1921: 43. References: (ds) Sokanovskii 1966: 357. (tx) Eggers 1921: 43; Schedl 1934f: 1633, 1945b: 53, 1952: Sokanovskii 1966: 357; Wichmann 1915b: 214–215.
- emarginatus* Wichmann 1915b: 246 (*Eccoptogaster*). Holotype ♂; Ferghana, Alai, Turkestan; Wichmann Collection. Synonymy: Eggers 1921: 43. References: (ds) Sokanovskii 1966: 357. (tx) Butovitsch 1929: 9; Eggers 1921: 43; Schedl 1934f: 1633, 1945b: 53; Sokanovskii 1966: 357; Wichmann 1915b: 215–216, 246.
- transcaspicus* Eggers 1922d: 116 (*Eccoptogaster*). Holotype, sex?; Transkaspien (Turkmenia, USSR); Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1945b: 53. References: (ay) Butovitsch 1929: 10, 31. (ds) Butovitsch 1929: 10, 31; Sokanovskii 1966: 357. (tx) Butovitsch 1929: 10, 31; Eggers 1922d: 116–117; Michalski 1968a: 113; Schedl 1934f: 1633, 1945b: 53, 1979c: 254; Sokanovskii 1966: 357.
- seulensis* Murayama 1930b: 5. Holotype, sex?; Seoul, Korea; Murayama Collection in USNM, Washington. Synonymy: Schedl 1945b: 53. References: (cc) Yoon et al. 1982. (hb) Yin, Huang, & Li 1984: 22; Yoon et al. 1982. (ds) Arnoldi et al. 1955: 660; Cho 1957; Choo 1983: 41; Choo & Woo 1985: 163; Choo, Woo, & Nobuchi 1988a: 133; Kleine 1934a: 169; Ko 1962: 283; Murayama 1930b: 5, 1936b: 116, 1937b: 374, 1940a: 230, 1942a: 50; Sokanovskii 1966: 357; Yin, Huang, & Li 1984: 22. (tx) Choo 1983: 41; Murayama 1930b: 5, 1937b: 374, 1940a: 230; Schedl 1934f: 1634, 1945b: 53; Sokanovskii 1966: 357; Yin & Huang 1980: 47; Yin, Huang, & Li 1984: 22.
- scolytus* (Fabricius) 1775: 59 (*Bostricus*). Syntypes 3, sex?; Angliae Dom. Lee; 1 at Colon Museum, 2 at UZMC, Copenhagen. Figures: Bevan 1987: 116, Michalski 1973a: pl. 24, Postner 1974: 382. Distribution: Asia (N Iran/Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxemburg/ Netherlands/ Norway/ Poland/ Portugal/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia). Hosts: *Ulmus* spp., rare in *Carpinus betulus*, *Fraxinus excelsior*, *Juglans regina*, *Populus nigra*, *Quercus* spp., *Salix* spp.
- Notes: (3) Rey 1992: 30 (named var. *ciliaris*, no status), Sokanovskii 1955: 37 (named var. *variabilis*, no status).
- References: (ay) Anderbrant, O. & Schlyter 1987a; Arnold & Barson 1977; Blight, Henderson, & Wadhams 1983; Blight et al. 1978; Chararas 1956a: 145; Chararas, Chipoulet, & Courtois 1979; Escherich 1914: 310, 1923b: 478, 492; Grove 1983; Henderson & Wadhams 1981; Jeffries & Fairhurst 1982; Lekander 1959b: 92; Mamaev & Semenov 1961; Marcus 1930: 644; Nusslin 1911a: 155; Robertson 1961; Schwerdtfeger 1929: 360; Wadhams 1982; Wadhams, Angst, & Blight 1982. (bv) Anderbrant, O. & Schlyter 1987b; Barr, B. A. 1969: 643; Blight 1981; Blight, Henderson, & Wadhams 1983; Blight, Wadhams, & Wenham 1978, 1979a, 1979b; Blight et al. 1977, 1978, 1979a, 1980, 1981, 1982, 1983; Borden & King 1977, 1978; Chararas 1956b: 561; Chararas et al. 1982: 1094; Gerken & Grune 1978; Grove 1983; Grune 1979: 35; Inscoc 1982; Jeffries & Fairhurst 1982; Keyserlingk 1982; Kirby, S. G. & Fairhurst 1981b, 1983; Klassen, Ridgway, & Inscoc 1982; Klimetzek & Kopp 1983; Maksimovic 1979a; Manojlovic 1986b; Michalski 1959c: 170; Minks & van Deventer 1978; O'Callaghan 1982a; O'Callaghan & Atkins 1981; O'Callaghan, Gallagher, & Lanier 1978; Peacock 1979; Prell 1926: 69, 1931: 368; Svihra & Volney 1983: 519; Vite et al. 1976; Wadhams 1982; Wadhams, Angst, & Blight 1982; Walker, C. 1974; Walker, C. & Ross 1975; Webber & Kirby 1983. (cn) Acatay 1943a: 54; Aerts 1921; Androic 1966: 46; Anonymous 1921j: 72, 1925c: 121, 1930j: 231, 1931d: 45, 1965l, 1975q, 1979p; Ass & Funtikov 1941; Austara et al. 1983; Barson 1977; Beattie 1931, 1933: 458, 1934: 569–570, 1935: 189–190; Beaver 1969; Bechtold 1950; Bejer-Petersen 1978; Betrem 1930a: 273–285; Bevan 1987: 129; Bevan & Davies 1972: 102; Blatchford 1983: 29; Blight et al. 1979a, 1980; Boocock 1959b; Bosman & Meijermann 1969: 325–330; Boyce 1938; Brasier 1983: 100; Brill 1930, 1931; Britton 1936: 109–110; Browne 1968: 645; Buisman 1932: 17–36; Bussman 1949; Butovitsch 1927: 170, 1934; Chararas 1956: 113–213, 1972; Chorbadzhiev 1929; Claydon, Grove, & Pople 1977, 1985; Clinton & McCormick 1936; Dannerman 1950: 154–155; Daviault 1945b: 280; Draghetti 1947; Dudley 1925; Eckstein 1926: 596; Ehnstrom 1985; Ermisch 1925; Esbjerg & Bejer-Petersen 1979; Escherich 1914: 310, 1923b: 478, 492; Esterberg 1959; Fairhurst & Fairhurst 1981; Felt 1933a, 1934b: 317, 1943: 58–64; Finney & Mordue 1976; Finney & Walker 1977, 1979; Fisher 1928: 53–61, 1931: 120–131, 1937: 110–128; Fransen 1931a: 49–62, 1931b: 169–183, 1933: 38, 1935a, 1935b, 1937, 1939a, 1939b; Fransen & Buisman 1935; Franz 1947b, 1948e; Fystro 1960;

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- Schedl 1948b: 43, China 1962b: 6, 1963b: 416, ICZN 1963a: 416.
- References: **(ay)** Scheyvrew 1889a: 22; Scholz 1905: 144. **(cn)** Barbey 1925: 597; Betrem 1930b: 274; Eckstein 1915; Hess 1900: 49, 1907: 277; Hess & Beck 1914: 239; Judeich & Nitsche 1895: 444; Keller 1903b: 39; Lohrenz 1907: 48; Packard 1890: 860; Schouteden 1927: 114; Severin 1906: 401. **(ce)** Betrem 1930b: 274; Severin 1899: 383. **(hb)** Barbey 1901: 16, 34, 1925: 597, 1942; Boas 1923: 340; Chittenden 1890; Dombrowsky 1887, 1892; Eckstein 1897, 1915; Eichhoff 1881a: 40, 148, 1892a: 95; Everts 1903: 740, 1922: 636; Curan 1933; Henschel 1895a: 155; Hess 1900: 49, 1907: 277; Hess & Beck 1914: 239; Joly 1950; Judeich & Nitsche 1895: 444; Knoche 1904: 32, 1905: 357, 1908a: 44; Knotek 1894a: 553; Lohrenz 1907: 48; Lunardoni & Leonardi 1889: 448; Nusslin 1898: 276, 1906b: 6; Packard 1890: 860; Smith, J. B. 1886: 127. **(ds)** Barthe 1896; Bau 1888; Bielz 1887; Boas 1923: 340; Butovitsch 1929: 9; Chapman 1910; Chittenden 1890; Fricken 1889: 282; Gemminger & Harold 1872: 2695; Curan 1933; Henschel 1895a: 155; Heyden, Reitter, & Weise 1883: 181; Judeich & Nitsche 1895: 444; Knotek 1892a: 35, 1894a: 553; Lunardoni & Leonardi 1889: 448; Nusslin 1898: 276; Oliveira 1887: 327; Scheyvrew 1890c: 469; Schilsky 1909: 186; Schulze 1913: 59; Semedo 1961: 118; Smith, J. B. 1886: 127; Sokanovskii 1966: 383; Stein & Weise 1877: 164. **(tx)** Balachowsky 1949a: 71; Barbey 1901: 16, 34; Boos 1923: 340; Butovitsch 1929: 9; Chapman 1910; China 1962b: 6; Dombrowsky 1887, 1892; Eichhoff 1881a: 40, 148, 1883a: 105, 129; Everts 1903: 740, 1922: 636; Fauvel 1887; Ferrant 1911; Fricken 1889: 282; Goeze 1777: 143; Henschel 1895a: 155; Judeich & Nitsche 1895: 444; Knotek 1892a: 35; Letzner 1891: 374; Lovendal 1889b: 44, 1898: 51; Lunardoni & Leonardi 1889: 448; Rey 1892b: 30; Schedl 1934f: 1633, 1948b: 43–45, 1950j: 96; Scheyvrew 1889a: 22; Sokanovskii 1966: 383. **(ms)** Kholodkovskii 1893: 390.
- niger* Geoffroy 1755: 139. Syntypes, sex²; Angliae Dom. Lee; Colon Museum and UZMC, Copenhagen, automatic. Synonymy: China 1962b: 6, 1963b: 416, ICZN 1963a: 41. References: **(ds)** Fourcroy 1785. **(tx)** China 1962b: 6, 1963b: 416; ICZN 1963a: 41; Geoffroy 1755: 139.
- destructor* Olivier 1795b: 5. Syntypes, sex²; Europe; presumably MNHN, Paris, not located. Synonymy: Gyllenhal 1813: 347, Balachowsky 1949a: 71. References: **(ay)** Aslam 1961: 439; Imhoff 1856: 228; Parkin 1940: 367. **(cn)** Acloque 1914; Anonymous 1902b: 21; Archer 1866; Betrem 1930b: 274; Collinge 1915: 789–791; Jemmett 1913: 1–44; Kauschinger 1893: 193; Koppen 1882: 236, 250; Leroy 1828: 29; Lohrenz 1907: 49; Lokaj 1906: 21; MacLeay 1824: 125; Newman 1858: 6118; Peck 1879: 35; Puls 1886: 53; Ratzeburg 1871c: 83; Reader 1828: 380; Rehberg 1903: 92; Riley 1867: 68; Semedo 1961: 118; Spence 1840: 10; Walsh 1867b: 58. **(ce)** Askew 1965: 142; Betrem 1930b: 274; Britton 1934; Elliot & Morley 1907; Greig 1981; Hinton 1945: 223; Laidlaw 1932: 117; Laumon & Ritter 1971; Peace 1960: 9; Poinar 1975: 167; Ratzeburg 1869a: 176; Rondani 1873: 161; Schaarschmidt 1959: 804; Semedo 1961: 118; Turner 1937: 144. **(hb)** Anonymous 1902b: 21; Bach 1864; Chapman 1869: 126–131; Dallimore & Munro 1922: 189–193; Everts 1900; Fisher 1928: 53–61, 1931: 120–131, 1937: 112–128; Hickin 1963; Holmgren 1867: 114, 138; Kauschinger 1893: 193; Laidlaw 1932: 117; Lindemann 1881b: 171; Lohrenz 1907: 49; MacDougall 1900a: 359, 1924: 102; MacLeay 1824: 125; Munro 1926: 45; Nordlinger 1856: 42; Pauly 1894; Ratzeburg 1837: 137, 186, 1839: 168, 228, 1871c: 83; Rehberg 1903: 92; Rey 1892a: 18; Rupertsberger 1879: 231, 1880: 227; Semedo 1961: 118; Spierenburg 1930: 21; Stebbing 1908a: 108, 1909b: 13; Taschenberg 1880: 240; Tredd 1915a: 97. **(ds)** Acloque 1896, 1914; Airy & Shaw 1944: 80–82; Aureliano de Silva 1892: 38; Croswon & Hunter 1964: 200; Duffy 1945: 175; Everts 1900; Fairmaire 1846; Favre 1890; Hirst 1923: 971–1000; Holmgren 1867: 114, 138; Kaltenbach 1874: 593; Kestercanek 1881a: 12; Koppen 1882: 236, 250; Kraatz 1869: 59; Lacordaire 1866: 387; Lentz 1857: 140; Lindemann 1884b: 264; Lokaj 1868: 63; Lomnicki 1886a: 241; Matthews & Fowler 1883: 42; Meinert 1887: 70; Munro 1921: 88; Murayama 1939: 137; Parkin 1940: 364–377; Perris 1876a: 254, 1877a: 414; Poppius 1900: 109; Quirke 1943: 198; Ratzeburg 1837: 137, 186, 1839: 168, 228; Redtenbacher 1858: 837, 1874: 372; Reitter 1869b: 153; Riley 1867: 68–69, 1873: 160–168; Rivers 1856: 66; Rye 1866a: 198, 1890: 269; Sahlberg 1900: 106; Schaum 1859: 95; Schilsky 1909: 186; Schiodte 1873: 105; Seidlitz 1872: 389, 1891a: 556; Semedo 1961: 118; Sharp & Fowler 1893: 34; Siebke 1875: 285; Sparre-Schneider 1889: 61; Spierenburg 1930: 21; Stein 1868: 113; Stein & Weise 1877: 164; Stephens 1829a; Stierlin & Gautard 1872: 294; Sturm 1826: 194, 1843: 229; Thomson 1859: 147, 1865: 373, 1868: 224; Villa & Villa 1833: 26; Wessel 1877: 391; Westhoff 1882: 238; Winter, T. C. 1983: 25. **(tx)** Acloque 1896; Aslam 1961: 440, 459, 470; Bach 1854, 1864; Balachowsky 1949a: 71; Butovitsch 1929: 8; China 1963b: 418; Fairmaire 1864: 156–157; Gyllenhal 1813: 347; Houlbert 1922a: pl. 1,

1922b: 251; Jacquelin du Val & Fairmaire 1868: 103; Lacordaire 1866: 387; Latrielle 1807: 278; Leunis 1886: 183; Lindemann 1875c: 155, 1881b: 171; Murayama 1939: 137; Nordlinger 1848: 252, 1856: 42; Olivier 1795b: 5; Perris 1877a: 414; Ratzeburg 1837: 137, 186, 1839: 168, 228; Redtenbacher 1849a: 361, 1849b: 27, 1858: 837, 1874: 372; Rey 1892b: 30; Riley 1867: 68; Rupertsberger 1879: 231, 1880: 227; Saalas 1914: 75; Schedl 1948b: 43–45; Schlechtendal & Wunsche 1879: 125; Seidlitz 1872: 389, 1891a: 556; Stebbing 1909b: 13; Stephens 1829a, 1829b: 12, 1830: 361, 1939: 208; Taschenberg 1880: 240; Thomson 1859: 147, 1865: 373, 1868: 224; Westwood 1840: 39.

californicus LeConte 1868: 166. Holotype ♂; California [USA]; MCZ, Cambridge. Synonymy: Blackman 1934: 5.

References: (ay) Butovitsch 1929: 6. (cn) Swaine 1918a: 52. (hb) Swaine 1918a: 52. (ds) Butovitsch 1929: 6; Cockerell et al. 1907; Fall 1906: 202; Fall & Cockerell 1907: 217; Gemminger & Harold 1872: 2695; Hagedorn 1910d: 53; Henshaw 1882: 269, 1885: 149; Kleine 1913b: 151, 1914b: 391; Leng 1920: 337; Swaine 1909: 104. (tx) Balachowsky 1949a: 71; Blackman 1934: 5, 22; Butovitsch 1929: 6; Hagedorn 1910a: 123; LeConte 1868: 166, 1876: 371–372; Schedl 1948b: 43, 45; Smith, J. B. 1886: 127; Swaine 1909: 104, 1910a: 33, 1918a: 52.

triarmatus Eggers 1912c: 205 (*Eccoptogaster*). Holotype ♀; Patria dubiosa, verisimile Gallia mer; USNM, Washington. Synonymy: Schedl 1948b: 45.

Notes: (3) Balachowsky 1949a: 74 (treated as a good species).

References: (cn) Fystro 1960; Goidanich & Goidanich 1934; Lekander 1954b: 7; Mathiesen 1950: 74; Pfeffer 1979: 148. (ec) Escherich 1935; Fransen 1937b; Nosek 1959a: 118; Pfeffer 1979: 148. (hb) Butovitsch 1929: 39–41; Lekander 1954b: 7; Nosek 1959a: 118; Stark 1952: 112. (ds) Butovitsch 1927: 170, 1929: 39–41; Eggers 1944: 143; Hansen 1939; Hellen 1947; Horion 1935; Kleine 1934a: 169; Knotek 1892a: 36; Munster 1928: 288; Palm 1959: 28–29; Pfeffer 1924a: 96, 1989a: 48; Pjatinitskii 1930a: 163; Reitter 1916: 348; Sokanovskii 1966: 383; Stark 1952: 112. (tx) Anderson, W. H. & Anderson 1971: 34; Balachowsky 1949a: 74; Beaver 1970: 697; Butovitsch 1929: 39–41; Eggers 1912c: 205–206, 1914: 39, 1944c: 143; Knotek 1892a: 36; Palm 1959: 347; Pfeffer 1955a: 85; Reitter 1913: 14, 1916: 348; Schedl 1934f: 1633, 1948b: 45, 1979c: 255; Sokanovskii 1966: 383; Stark 1952: 112.

fuchsii Reitter 1913a: 15. Syntypes 2 ♂; Russischarmenisches Gebirge, am Alagoes; NHMB, Budapest. Synonymy: Schedl 1948b: 45.

References: (ay) Butovitsch 1929: 7, 47. (cn)

Greckin 1956: 1486. (hb) Greckin 1956: 1486; Stark 1952: 146. (ds) Butovitsch 1929: 7, 47; Kleine 1934a: 168; Schaufuss 1915: 1206; Sokanovskii 1966: 383; Stark 1952: 146. (tx) Butovitsch 1929: 7, 47; Reitter 1913a: 14–15; Schedl 1934f: 1633, 1948b: 45; Sokanovskii 1966: 1383; Stark 1952: 146.

semenovi (Spessivtsev) 1919: 245 (*Eccoptogaster*).

Lectotype ♂; Vladivostok, Far East, USSR; IZL, Leningrad, designated by Michalski 1968b: 185. Figures: Michalski 1973a: pl. 13, Yin, Huang, & Li 1984: 26.

Distribution: Asia (Hebei, Shanxi in China/ Mongolia/ E USSR).

Hosts: *Ulmus japonica*, *U. laciniata*, *U. propinqua*, *U. pumila*, *Malus* sp.

References: (ay) Butovitsch 1929: 33. (cn) Kurenzov 1935c: 189; Pfeffer 1979: 149. (ec) Kurenzov 1934a: 57, 1964: 19; Pfeffer 1979: 149. (hb) Kurenzov 1935a: 19, 23, 1948b: 119; Stark 1952: 102. (ds) Butovitsch 1929: 33; Choo 1983: 40; Kleine 1934a: 169; Krivolutsкая 1983; Krivolutsкая & Kupyanskaya 1970; Kurenzov 1934a: 57, 1935a: 19, 23, 1935c: 189, 1936a: 110, 1936b: 350, 1938: 60, 1964: 19, 1967; Michalski 1973a: 52; Sokanovskii 1966: 388; Stark 1952: 102; Yanovskii & Tegshzhargal 1985: 406; Yin, Huang, & Li 1984: 26. (tx) Butovitsch 1929: 33; Choo 1983: 40; Endrodi 1957: 420; Kurenzov 1941a: 95–97, 1948b: 119; Michalski 1968a: 107–108, 1968b: 184–185, 1973a: 52–54, pl. 13; Schedl 1934f: 1634, 1941a: 42, 1948b: 55–56; Sokanovskii 1954: 14, 1955: 388, 1966: 382, 388; Spessivtsev 1919: 245, 247–248; Stark 1952: 102–104; Tsai, Yin, & Huang 1962: 4, 6; Yin & Huang 1980: 47; Yin, Huang, & Li 1984: 26.

kononovi Kurenzov 1941a: 98, 228. Lectotype ♂; Ussuri, USSR; IZL, Leningrad, designated by Michalski 1968b: 184. Synonymy: Schedl 1948b: 56.

References: (hb) Stark 1952: 103. (ds) Sokanovskii 1966: 388; Stark 1952: 103. (tx) Kurenzov 1941a: 98, 228; Michalski 1968a: 107, 1968b: 184; Schedl 1948b: 56; Sokanovskii 1966: 384, 388; Stark 1952: 103.

shanhaiensis Yin & Huang 1980: 50, 53. Holotype

♂; Liaoning: Gaoling; IZAS, Beijing.

Figures: Yin & Huang 1980: 50.

Distribution: Asia (Liaoning in China).

References: (ds) Yin, Huang, & Li 1984: 34. (tx) Yin & Huang 1980: 50, 53; Yin, Huang, & Li 1984: 34.

sinopiceus Tsai 1962: 9. Holotype ♂; Miyalo, Aba-Tebetian, China; IZAS, Beijing.

Figures: Michalski 1973a: pl. 44.

Distribution: Asia (Gansu, Inner Mongolia, Ningxia, Qinghai, Sichuan, Xizang [Tibet], Yunnan in China).

Hosts: *Picea asperata*, *P. likiangensis*.

References: (ds) Michalski 1973a: 130; Yin &

- Huang 1981: 556; Yin, Huang, & Li 1984: 34. **(tx)** Michalski 1973a: 130–132, pl. 44; Tsai 1962: 9, 14; Yin & Huang 1980: 48, 1981: 556; Yin, Huang, & Li 1984: 34.
- spinidens** Schedl 1966f: 96. Holotype ♀; Niederl. Guayana; Schedl Collection in NHMW, Wien.
Distribution: South America (Suriname).
References: **(ds)** Schedl 1966f: 79. **(tx)** Schedl 1966f: 96, 1979c: 234.
- squamosus** Yin & Huang 1980: 49, 52. Holotype ♂; Yunnan: Shishong-Baanna; IZAS, Beijing.
Distribution: Asia (Yunnan in China).
Hosts: *Ulmus lanceaefolia*.
References: **(ds)** Yin, Huang, & Li 1984: 24. **(tx)** Yin & Huang 1980: 49, 52; Yin, Huang, & Li 1984: 24.
- strigipennis** Schedl 1976a: 60. Holotype ♂; Brasilien; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: **(tx)** Schedl 1976a: 60.
- submarginatus** Schedl 1937h: 163. Syntypes, sex?; Nova Teutonia, Brasilien; Schedl Collection in NHMW, Wien, Planmann Collection, Stroh-meyer Collection, Eberswald.
Distribution: South America (Brazil/ Paraguay).
Notes: (1) Schedl 1979c: 242 (citation of holotype invalid). (3) Schedl 1937h: 162 (*longipilosus*, nomen nudum, no status), 1937h: 163 (named var. *artestriatus*, no status in nomenclature).
References: **(ds)** Berti-Filho 1979: 41; Blackwelder 1947: 788; Schedl 1966f: 81, 1970e: 80, 1976a: 49. **(tx)** Schedl 1937h: 158, 162–163, 1951 (footnote in Eggers 1951: 144), 1952a: 445, 1958f: 33, 1979c: 443.
- subscaber** LeConte 1876: 373. Lectotype ♀; Vancouver, British Columbia [Canada]; MCZ, Cambridge, designated by Wood 1982b: 443.
Figures: Bright 1976d: 28, Edson 1967: 53 (adult), 58 (galleries).
Distribution: North America (British Columbia in Canada/ California, N Idaho, Montana, Oregon, Washington in USA).
Hosts: *Abies concolor*, *A. grandis*, *A. magnifica*.
Notes: (3) Blackman 1934: 17 (redescribed).
References: **(ay)** Butovitsch 1929: 9. **(cn)** Burke 1908; Chamberlin 1924; Doane et al. 1936; Essig 1926: 512, 1958: 512; Hopkins 1901a: 251, 1904a: 21; Keen 1938: 119, 1952c: 158; Leach 1940b: 224; Miller 1929: 994; Struble 1937d: 10, 1957: 12–14; Woods 1969. **(cc)** Ashraf & Berryman 1969: 14; Furniss, R. L. & Carolin 1977: 404; Keen 1938: 119; Leach 1940b: 224; Marsh 1979: 150; Miller 1929: 994; Struble 1957: 12; Tehon 1942: 238; Wright 1938: 560. **(hb)** Bright 1976d: 34; Bright & Stark 1973: 14; Burke 1908: 115; Chamberlin 1939: 228, 1958: 44; Doane et al. 1936; Edson 1967: 29; Essig 1926: 512, 1958: 512; Furniss, R. L. & Carolin 1977: 404; Gast et al. 1989: 383; Hopkins 1901e: 67, 1904a: 21; Keen 1938: 119, 1952c: 158; Pierce 1907: 293; Struble 1937d: 10, 1957: 12; Wood, S. L. 1982b: 443; Woods 1969. **(ds)** Blackwelder 1939; Bright 1976d: 34; Bright & Stark 1973: 14; Butovitsch 1929: 9; Chamberlin 1917: 325, 1925, 1939: 228, 1958: 44; Currie 1905: 76; Edson 1967: 29; Essig 1926: 512, 1958: 512; Furniss, R. L. & Carolin 1977: 404; Gast et al. 1989: 383; Hagedorn 1910d: 89; Henshaw 1882: 269, 1885: 149; Keen 1929a: 12, 1938: 119, 1952c: 158; Kleine 1913b: 152, 1914b: 391, 398, 1934a: 169; Laursen 1979; Leng 1920: 337; Patterson & Hatch 1945: 148; Swaine 1909: 107; Wood, S. L. 1972a: 397, 1982b: 443; Woods 1969. **(tx)** Blackman 1934: 17–18; Bright 1964: 167, 1976d: 28–29; Butovitsch 1929: 9; Chamberlin 1939: 228, 1958: 44; Edson 1967: 29, 53; Hagedorn 1910a: 124; Keen 1929a: 12; LeConte 1876: 373; Swaine 1909: 107, 1910a: 33, 1917: 32, 1918a: 64; Wood, S. L. 1962: 81, 1972a: 397, 1982b: 443; Woods 1969. **(ms)** Essig 1931: 655.
- sulcifrons** Rey 1892: 30. Syntypes, sex?; Lyons, France; Rey Collection in Lyons Museum.
Figures: Michalski 1973a: pl. 25.
Distribution: Europe (Bulgaria/ France/ Greece/ Hungary/ Italy/ W USSR/ Yugoslavia).
Hosts: *Ulmus* spp., *Quercus* sp.
References: **(ay)** Butovitsch 1929: 10, 41–42. **(bv)** Maksimovic 1979a: 285. **(cn)** Anonymous 1978w; Clinton & McCormick 1936; Goidanich 1937: 417–425; Goidanich & Goidanich 1934, 1937; Grandi 1957; Kalandra & Pfeffer 1935: 6; Karaman 1967: 186; Leach 1940b: 227; Lindeman 1963: 1582–1584, 1964: 78–80, 113; Mumford 1965: 33; Pfeffer 1979: 148; Tubeuf 1935: 76; Vajda 1952: 114. **(ec)** Escherich 1935; Krivosheina 1974; Leach 1940b: 227; Maksimovic 1979a: 285; Novak, P. 1952: 411; Pfeffer 1979: 148; Ruschka 1916: 27; Szczepanski 1960a: 409; Thompson, W. R. & Simmonds 1964: 36, 1965: 68; Wichmann 1916: 11. **(hb)** Beffa 1949; Cecconi 1924; Clinton & McCormick 1936; Goidanich 1934: 145–163, 1946; Grandi 1957; Kostin 1960: 130; Maksimovic 1979a: 285; Stark 1952: 111; Wichmann 1916: 11. **(ds)** Anonymous 1978w; Audras & Schaefer 1957; Balachowsky 1944b; Beffa 1949; Buresh & Lazarov 1956; Butovitsch 1929: 10, 41–42; Clinton & McCormick 1936; Kleine 1913a: 307; Luigioni 1929: 989; Michalski 1973a: 86; Mumford 1965: 33; Novak, P. 1952: 411, 1964; Pfeffer 1935: 159, 1936: 90, 1947d: 126, 1955a: 80; Pittioni 1943: 176; Readio 1935: 344; Sainte-Claire 1914: 467; Sainte-Claire & Mequignon 1938: 443; Schaufuss 1915: 1206; Schilsky 1909: 186; Stark 1952: 111. **(tx)** Balachowsky 1943: 168, 1944b: 17–18, 1949a: 73; Beffa 1949; Butovitsch 1929: 10, 41–42, 1964: 221; Eggers 1908: 194, 1910: 36, 1911a: 73–74, 1912a: 48, 1912c: 205, 1913a: 284–285, 1941c: 123; Luigioni 1929: 989; Michalski 1973a: 86–88, pl. 25; Reitter 1913a: 15; Rey 1892: 30; Schedl 1934f: 1633, 1948b: 43, 45, 1964k: 221–222, 1967c:

- 68; Sokanovskii 1954: 14, 1966: 383; Stark 1952: 111; Wichmann 1913d: 144, 1916: 11–13.
- leonii** Eggers 1908: 194 (*Eccoptogaster*). Lectotype ♂; Cerchio, Aquilensi, Italy; USNM, Washington, designated by Anderson & Anderson 1971: 17. Synonymy: Balachowsky 1949a: 73. References: (**ds**) Sokanovskii 1966: 383. (**tx**) Anderson, W. H. & Anderson 1971: 17; Balachowsky 1949a: 73; Eggers 1908: 194, 1910e: 36, 1911a: 73–74, 1912a: 48, 1913; Hagedorn 1910a: 123; Reitter 1913a: 15; Schedl 1934f: 1633, 1948b: 43; Sokanovskii 1966: 383; Wichmann 1913d: 144. (**ms**) Eggers 1910b.
- tadzjikistanicus** Stark 1941: 302. Lectotype ♂; prope Stalinabad, Tajikistan, USSR; IZL, Leningrad, designated by Michalski 1968b: 192. Figures: Greckin 1956: 1481, Michalski 1968a: 112, 1973a:pl. 45. Distribution: Asia (Tajikistan in W USSR). Hosts: *Acer turkestanicum*, *Malus* spp. References: (**cn**) Greckin 1956: 1481; Kulinich 1965: 134. (**hb**) Greckin 1956: 1481; Stark 1952: 130. (**ds**) Kadyrov 1988: 43, 1989; Michalski 1973a: 132; Sokanovskii 1966: 389; Stark 1952: 130. (**tx**) Grechkin 1956: 1481; Michalski 1968a: 111–112, 1968b: 192, 1973a: 132–134, pl. 45; Sokanovskii 1954: 14, 1966: 389; Stark 1941: 299–302, 1952: 130–131.
- thoracicus** Chapuis 1869: 55. Syntypes 2 ♂; Bresil; IRSNB, Brussels. Distribution: South America (Brazil). Notes: (3) Schedl 1959m: 546 (named var. *labiatus*, no status). References: (**ay**) Butovitsch 1929: 10. (**hb**) Viana 1964: 130. (**ds**) Blackvelder 1947: 788; Butovitsch 1929: 10; Gemminger & Harold 1872: 2696; Hagedorn 1910d: 89; Kleine 1913b: 152, 1914b: 336; Numberg 1962: 223; Schedl 1966f: 81, 1973d: 150, 1976a: 49; Viana 1964: 130. (**tx**) Butovitsch 1929: 10; Chapuis 1869: 55, 1873: 263; Hagedorn 1910a: 124; Schedl 1937h: 155, 161, 1948d: 36, 1952a: 444–445, 1958f: 33, 1959m: 546. *brevicauda* Wichmann 1915a: 104 (*Eccoptogaster*). Holotype, sex?, Boa Sorta (Minas Geraes), Brasilien; not given. Synonymy: Schedl 1937h: 161. References: (**ay**) Butovitsch 1929: 6. (**ds**) Butovitsch 1929: 6. (**tx**) Butovitsch 1929: 6; Schedl 1937h: 155–161; Wichmann 1915a: 104–105.
- torulus** Wood 1975a: 25. Holotype ♂; Rincon de Osa, Puntarenas, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: Leguminous tree. References: (**ds**) Wood, S. L. 1982b: 449. (**tx**) Wood, S. L. 1975a: 25, 1982b: 449.
- transversalis** Eggers 1943a: 375. Holotype, sex?, Bolivia (Cochabamba); MNHN, Paris. Distribution: South America (Bolivia). Notes: (1) Schedl 1979c: 254 (Type in Schedl Collection; were there two types or did Schedl take the type before Eggers could return it to MNHM, Paris?).
- References: (**tx**) Eggers 1943a: 375; Schedl 1979c: 254.
- trispinosus** Strohmeier 1908b: 69. Holotype ♂; Kushiro, Japan; Strohmeier Collection, in IPKE, Eberswalde. Figures: Michalski 1973a:pl. 26. Distribution: Asia (NE China/ Japan/ E USSR). Hosts: *Ulmus* spp., *Fraxinus mandshurica*. Notes: (3) Schedl 1948b: 43 (treated this as a synonym of *esuriens*). References: (**ay**) Butovitsch 1929: 10, 47. (**cn**) Kurenzov 1935c: 189. (**hb**) Krivolutsкая 1965a: 226, 1973: 130; Kurenzov 1935a: 19, 24, 1948b: 117; Stark 1952: 122. (**ds**) Butovitsch 1929: 10, 47; Hagedorn 1910d: 89; Kleine 1913b: 152, 1914b: 259, 1934a: 169; Krivolutsкая 1965a: 226, 1973: 130; Krivolutsкая & Kupyanskaya 1970; Kurenzov 1935a: 19, 24, 1935c: 189, 1936a: 110, 1936b: 350, 1938a: 58; Michalski 1973a: 88; Murayama 1936a: 122; Sokanovskii 1966: 383; Stark 1952: 122. (**tx**) Butovitsch 1929: 10, 47; Hagedorn 1910a; Krivolutsкая 1958: 111–112, 1965: 226–227; Kurenzov 1941a: 90–91, 104–105, 1948b: 117; Michalski 1964: 668, 1968b: 191, 1969c: 661–662, 1973a: 88–91, pl. 26; Murayama 1936a: 122; Niisima 1909: 118; Schedl 1934f: 1633, 1941a: 42, 1948b: 43, 1964k: 221–222; Sokanovskii 1954: 14, 1966: 383; Stark 1952: 122; Strohmeier 1908b: 69; Tsai, Yin, & Huang 1962: 7. (**ms**) Eggers 1910b.
- grandis* Kurenzov 1941a: 104, 227. Holotype ♀; Iman, ad fluviam Arm, Primorye, USSR; IZL, Leningrad. Synonymy: Michalski 1973a: 88. Notes: (3) Schedl 1948b: 43 (= *esuriens* Blandford). References: (**hb**) Kurenzov 1948b: 119; Stark 1952: 128. (**ds**) Blackvelder 1939; Michalski 1968b: 191; Sokanovskii 1954: 14, 1966: 383; Stark 1952: 128. (**tx**) Kurenzov 1941a: 104, 227, 1948b: 119; Michalski 1968a: 111, 1973a: 88; Schedl 1948b: 43; Sokanovskii 1966: 383; Stark 1952: 128.
- tsugae** (Swaine) 1917: 32 (*Eccoptogaster*). Lectotype ♀; Glacier, British Columbia [Canada]; CNCI, Ottawa, designated by Bright 1967b: 674. Figures: Bright 1976d: 28, 194, Edson 1967: 45 (adult), 57 (galleries). Distribution: North America (British Columbia in Canada/ California, N Idaho, W Montana, Oregon, Washington in USA). Hosts: *Tsuga* spp. Notes: (3) Blackman 1934: 15 (redescribed). References: (**ay**) Butovitsch 1929: 10; Thomas, J. B. 1967. (**bv**) Daterman, Rudinsky, & Nagel 1965; Schenk, Berryman, & Dale 1976. (**cn**) Anonymous 1983d; Browne 1968: 646; Chamberlin 1924; Doane et al. 1936; Essig 1926: 512, 1958: 512; Hatch 1938: 193; Keen 1938: 122, 129, 1952c:

- 166; McMullen & Atkins 1962a; Ostmark 1956: 9; Ruppel 1967: 87; Ryker & Rudinsky 1979: 207; Schenk, Berryman, & Dale 1976; Schuder 1969: 81; Swaine 1918a: 53; Woods 1969. (**cc**) Bushing 1965: 467; Chamberlin 1918a; Furniss, R. L. & Carolin 1977: 404; Keen 1938: 129; Marsh 1979: 158; Matthews 1970; McMullen & Atkins 1962a; Phaff & Lidia do-Carmo-Sousa 1962; Richerson, J. V. & Borden 1972a; Schenk, Berryman, & Dale 1976. (**hb**) Ashraf & Berryman 1969: 7; Bright 1968: 646, 1976d: 32; Bright & Stark 1973: 14; Chamberlin 1939: 228, 1958: 43; Daterman, Rudinsky, & Nagel 1965; Doane et al. 1936; Edson 1967: 17; Essig 1926: 512, 1958: 512; Furniss, R. L. & Carolin 1977: 404; Goeden & Norris 1964b: 745; Keen 1938: 129, 1952c: 166; Kirkendall 1984: 237; McMullen & Atkins 1959b: 416, 1962a; Ryker & Rudinsky 1979: 207; Swaine 1918a: 53; Wood, S. L. 1982b: 435; Woods 1969. (**ds**) Anonymous 1983d; Bedard 1938a; Bright 1968: 646, 1976d: 32; Bright & Stark 1973: 14; Butth & Ellis 1981; Butovitsch 1929: 10; Chamberlin 1918a: 27, 1925, 1939: 228, 1958: 43; Edson 1967: 17; Essig 1926: 512, 1958: 512; Furniss, R. L. & Carolin 1977: 404; Gast et al. 1989: 385; Gautreau & Melvin 1974: 14; Hopping 1922; Keen 1929a: 12, 1938: 129, 1952c: 166; Kleine 1934a: 169; Kusch 1967; Leng 1920: 337; Patterson & Hatch 1945: 148; Ruppel 1967: 87; Schenk, Berryman, & Dale 1976; Schuder 1969: 81; Still, Tidsbury, & Melvin 1974a: 14; Wood, S. L. 1972a: 396, 1982b: 435; Woods 1969. (**tx**) Benoit 1985: 39; Blackman 1934: 6–7, 15; Bright 1967b: 674, 1976d: 28, 32, 194; Butovitsch 1929: 10; Chamberlin 1939: 228, 1958: 43; Edson 1967: 17, 45; Hoebeke 1978; Keen 1929a: 12; Kusch 1967: 9; McMullen & Atkins 1962a; de Ruelle 1970: 101; Ryker & Rudinsky 1979: 207; Swaine 1917: 32, 1918a: 52–53; Thomas, J. B. 1967; Wood, S. L. 1966b: 30, 1972a: 396, 1977c: 388; 1982b: 435; Woods 1969. (**ms**) Hatch 1938: 193.
- unispinosus** LeConte 1876: 372. Lectotype ♂; Oregon [USA]; MCZ, Cambridge, designated by Wood 1982b: 432. Figures: Edson 1967: 42, 43 (adult), 56 (galleries). Distribution: North America (W Alberta, British Columbia in Canada/ Arizona, California, Colorado, Idaho, W Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming in USA). Hosts: *Pseudotsuga menziesii*, rare in other conifers. Notes: (3) Blackman 1934: 26 (redescribed). References: (**ay**) Atkins & McMullen 1957: 8; Butovitsch 1929: 10; Essig 1926: 512; McMullen & Atkins 1962a. (**bv**) Daterman, Rudinsky, & Nagel 1965; McMullen & Atkins 1962a; Vite & Pitman 1967: 638–701; Wright, L. C. & Berryman 1978. (**cn**) Anderson, R. F. 1960: 237; Anonymous 1960i, 1960j: 6, 1960q, 1961i, 1962h, 1962i, 1963j, 1963y, 1966f, 1970h, 1971i, 1972h, 1973c, 1976i, 1978g, 1978h: 4, 1979e: 8, 1979g, 1980a, 1980m: 33, 1981j, 1983d, 1984f; Bongberg 1962; Bright 1968: 646; Brunner 1915: 1–23, 1918: 27; Buckhorn & Orr 1962: 18; Chamberlin 1924; Craighead 1927: 1–12; Curtis & Hadfield 1977b; Doane et al. 1936; Dolph & Pettinger 1968: 49; Essig 1926: 512, 1958: 512; Fiddick & van Sickle 1980: 20; Gregg, Coheen, & Bridgewater 1978: 48; Hatch 1938: 192; Hofacker & Loomis 1982: 22; Hopkins 1899b: 16, 21–22, 1904a: 20; Keen 1938: 119–122, 1952c: 155; McMullen & Atkins 1962a; Molnar, Harris, & Ross 1965: 103; Orr, P. W. 1963b; Orr, P. W. & Pettinger 1964; Packard 1890: 859; Pettinger 1979; Pierce, J. R. 1971: 12; Rudinsky & Terrier 1959: 485–488; Ruppel 1967: 87; Ryker & Rudinsky 1979: 205; Schabel 1971; Schuder 1969: 81; Silver & Ross 1965a: 123; Smith, C. J. & Melvin 1974a; Sterner & Davidson 1981: 17; Stevens 1959b: 1; Swaine 1918a: 53; Tunnock 1963: 10; Woods 1969; Wright, L. C. & Berryman 1978. (**cc**) Ashraf & Berryman 1969: 12; Bedard 1933a; Brunner 1915; Burks 1979: 774; Bushing & Bright 1965: 204; Chamberlin 1918a; Craighead et al. 1927; Deyrup & Gara 1978: 276; Furniss, R. L. & Carolin 1977: 404; Keen 1938: 119; Kinn 1971; Marsh 1979: 150; McMullen & Atkins 1962a; Phaff & Yoneyama 1961; Rice 1968, 1969: 382–386; Wright, L. C. & Berryman 1978. (**hb**) Anderson, R. F. 1960: 237; Ashraf & Berryman 1969: 7; Atkins & McMullen 1962: 17; Bongberg 1959a; Bright 1968: 646, 1976d: 36; Bright & Stark 1973: 14; Chamberlin 1939: 233, 1958: 47; Chittenden 1890; Daterman, Rudinsky, & Nagel 1965; Doane et al. 1936; Edson 1967: 12; Essig 1926: 512, 1958: 512; Furniss, R. L. & Carolin 1977: 404; Goeden & Norris 1964b: 745; Hopkins 1899b: 16, 21–22, 1904a: 20; Keen 1938: 119, 1952c: 155; Kirkendall 1984: 237; McMullen & Atkins 1959b: 416, 1962a; Packard 1890: 859; Pierce, W. D. 1907: 292; Ryker & Rudinsky 1979: 205; Schmitz & Rudinsky 1968: 1–42; Schwarz 1894b: 255; Smith, J. B. 1886: 125; Swaine 1918a: 53; Vitomskii 1928a: 178; Walters & McMullen 1956: 198; Wood, S. L. 1982b: 432; Woods 1969. (**ds**) Anderson, R. F. 1960: 237; Anonymous 1962i, 1963j, 1963y, 1966f, 1970h, 1973c, 1976h, 1978g, 1978h: 4, 1979e: 8, 1979g, 1980a, 1980m: 33, 1981j, 1983d, 1984f; Bedard 1938a; Blackwelder 1939; Bongberg & Bennett 1960: 1; Bright 1968: 646, 1976d: 36; Bright & Stark 1973: 14; Butovitsch 1929: 10; Chamberlin 1917: 321–328, 1918a: 25, 1925, 1939: 233, 1958: 47; Chittenden 1890; Cockerell et al. 1907; Currie 1905: 76; Edson 1967: 12; Essig 1926: 512, 1958: 512; Evans, D. 1983: 36; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 404; Gast et al. 1989: 385; Hagedorn 1910d: 89; Hall & Eaton 1960; Henshaw 1882: 269, 1885: 140; Hopping 1922; Keen 1929a: 12, 1938: 119, 1952c: 155; Kleine 1913b: 152, 1914b: 407, 1934a: 169; Kusch 1967;

- Leng 1920: 337; Mank 1934: 81; McComb et al. 1953: 3; McMullen & Atkins 1962a; Patterson & Hatch 1945: 149; Ruppel 1967: 87; Schuder 1969: 81; Smith, G. J. & Melvin 1974a; Smith, G. S. 1930; Smith, J. B. 1886: 125–127; Snow 1906: 175; Still, Tidsbury, & Melvin 1974a: 14; Swaine 1909: 108; Thatcher 1935: 261; Wickham 1896a: 309; Wood, S. L. 1948: 11, 1951a: 127, 1972a: 396, 1982b: 432; Woods 1969. **(tx)** Anderson, R. F. 1960: 237; Benoit 1986: 238; Blackman 1934: 10, 26; Bright 1976d: 29, 36; Bruck 1936a; Butovitsch 1929: 10; Chamberlin 1917: 325, 1939: 233, 1958: 47; Edson 1967: 12, 42; Eggers 1914: 38; Evans, D. 1983: 36; Hagedorn 1910a: 124; Keen 1929a: 12; Kusch 1967: 9; LeConte 1876: 372, 1878b: 626, 1879: 519; McMullen & Atkins 1962a; Muesebeck 1942: 100, 1950: 137; Ryker & Rudinsky 1979: 205; Swaine 1909: 108, 1910a: 33, 1918a: 53; Wood, S. L. 1956: 40, 1966b: 30, 1972a: 396, 1977c: 388, 1982b: 432; Woods 1969: fig. 5, 6. **(ms)** Bongberg 1859a; Essig 1931: 685; Hatch 1938: 192; Pettinger 1979; Schabel 1971.
- sobrinus* Blackman 1934: 23. Holotype ♂; Kent, Washington [USA]; USNM, Washington. Synonymy: Wood 1966b: 30.
References: **(cn)** Ruppel 1967: 87; Woods 1969. **(hb)** Chamberlin 1939: 232, 1958: 48; Woods 1969. **(ds)** Blackwelder 1939; Chamberlin 1939: 232, 1958: 48; Gautreau & Melvin 1974: 14; Kusch 1967; Patterson & Hatch 1945: 149; Ruppel 1967: 87; Woods 1969. **(tx)** Blackman 1934: 23–24; Chamberlin 1939: 232, 1958: 48; Kusch 1967: 9; Wood, S. L. 1966b: 30; Woods 1969.
- fiskei* Blackman 1934: 25. Holotype ♂; Capitan Mountains, N. Mex.; USNM, Washington. Synonymy: Wood 1977c: 388.
References: **(cn)** Doane et al. 1936; Schuder 1969: 81. **(hb)** Bright 1976d: 37; Chamberlin 1939: 232; Doane et al. 1936; Edson 1967: 13. **(ds)** Blackwelder 1939; Bright 1976d: 37; Chamberlin 1939: 232; Edson 1967: 13; Furniss, R. L. & Carolin 1977: 403; Schuder 1969: 81. **(tx)** Blackman 1934: 9, 25; Bright 1976d: 37; Chamberlin 1939: 232; Edson 1967: 13, 43; Wood, S. L. 1977c: 388.
- varshalovitchi* Michalski 1973a: 55. Holotype ♀; Lenkoran, Azerbaijan, USSR; IZL, Leningrad.
Figures: Michalski 1973a: pl. 14.
Distribution: Asia (Azerbaijan in USSR).
Hosts: *Carpinus betulus*.
References: **(ds)** Michalski 1973a: 55. **(tx)** Michalski 1973a: 55–57, pl. 14.
- ventralis* LeConte 1868: 167. Lectotype ♂; Washington Territory [USA]; MCZ, Cambridge, designated by Wood 1982b: 441.
Figures: Ashraf & Berryman 1969: 3, Bright 1976d: 28, 195, 215 Edson 1967: 38, 52 (adults), 58 (galleries).
Distribution: North America (British Columbia in Canada/ Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming in USA).
Hosts: *Abies concolor*, *A. grandis*, *A. magnifica*, accidental in other conifers.
Notes: (3) Blackman 1934: 22 (redescribed).
References: **(ay)** Ashraf & Berryman 1970b: 923–930; Ashraf, Mayr, & Sybers 1971; Bruhn 1947: 21; Butovitsch 1929: 10; Francke-Grosmann 1956b; Kirtibutr & Schenk 1977; Livingston & Berryman 1972; Payne et al. 1973; Sanders 1950: 4. **(bv)** Ashraf & Berryman 1969; Berryman 1965a, 1968c: 57–68, 1968d: 227–228, 1988; Berryman & Ashraf 1970; Berryman & Ferrell 1988; Bordasch & Berryman 1977; Christiansen & Huse 1980: 473; DeMars, Ferrell, & Ostrosina 1988; Dethier 1947; Felix, Uhrenholdt, & Parmeter 1971; Ferrell 1969b: 2238, 1971, 1974, 1986b; Ferrell et al. 1988; Hertert, Miller, & Partridge 1975; Klein, Parker, & Jensen 1978: 735; Lane & Goheen 1979; Raffa & Berryman 1987; Stevens 1971; Svihra & Volney 1983: 521; Thomas, T. L. & Agee 1986; Vite & Pitman 1967: 683–701; Wollerman 1979; Wood, D. L. 1980b; Wright, L. C., Berryman, & Wickman 1984. **(cn)** Anderson, R. F. 1960: 236; Anonymous 1955j: 10, 1956p: 110, 1958a: 7, 1960g: 10, 1960i, 1960j: 11, 1960q, 1960r, 1961e, 1961h, 1961i, 1961s, 1962h, 1962i, 1963e, 1963j, 1963k, 1963y, 1964i, 1964u, 1965c, 1966f, 1966i, 1967f, 1967h, 1968g, 1968h, 1969e, 1969f, 1969i, 1969m, 1970t, 1971i, 1972h, 1972t, 1972v, 1973c, 1974f, 1975d, 1975g, 1976f, 1976g, 1976h, 1976n, 1977h, 1977i, 1978a, 1978b: 34, 1978f, 1978g, 1978h: 4, 1979e, 1979f, 1979g: 4, 1980a: 30, 1980m: 30, 1981g, 1981j, 1982c, 1983d, 1983f, 1984f, 1986b: 6, 1987b: 3; Bailey 1957: 35; Basham 1959: 295; Beatty 1983; Bennett 1983; Berryman 1969b, 1973, 1988; Berryman & Ashraf 1970; Bongberg 1956a; Bordasch & Berryman 1977; Bousfield & Carlson 1978; Browne 1968: 646; Buckhorn 1957; Buckhorn & Orr 1961: 18, 1962: 17; Ciesla, Dewey, & Tunmock 1971: 19; Coulson & Witter 1984: 541; Craighead & Middleton 1930; Curry & Hadfield 1977a, 1977b; Curtis & Johnson 1975; DeNitto & Dale 1982b; DeNitto & Pierce 1983; Doane et al. 1936; Dolph & Hadfield 1971; Dolph & Pettinger 1968: 36, 1969: 7; 1971: 4; Ferrell 1973a, 1973b, 1974, 1983, 1986a, 1988; Ferrell & Hall 1975; Ferrell & Smith 1976; Ferrell et al. 1988; Fiddick 1980: 8; Fuller & Hostetler 1980; Gentry, G. R. et al. 1979: 817; Gibson et al. 1984; Graham 1952; Gregg, Filip, & Hadfield 1978: 21; Gregg, Goheen, & Bridgwater 1978: 44; Hagle et al. 1987: 44; Hain et al. 1978: 162; Hall R. C. 1958b, 1961; Hall, R. C. & Eaton 1960; Hamel 1980: 790; Hatch 1938: 193; Hawthorne 1963, 1964, 1965; Hayes 1959: 1–54; Hofacker & Loomis 1982: 18, 1983: 21; Hofacker, Loomis, & Gilstrap 1988: 15; Hof-

- acker, Loomis, & Tucker 1984: 4; Hofacker et al. 1989; Honing 1970: 21; Hopkins 1899b: 10; James & Goheen 1981; James et al. 1985; Jemison et al. 1956: 44–45, 50; Johnsey 1984; Johnson, D. W. & Creasip 1978a; Johnson, N. E. & Shea 1963: 1–8; Keen 1938: 119–122, 1952c: 158; Kirtibutr & Schenk 1977; Klein, W. H. 1966: 17, 1967, 1968; Klein, W. H. & McGregor 1966; Klein, W. H. & Parker 1970: 17; Knapp et al. 1989: 9; Landgraf & Ostmark 1958: 10; Lane & Goheen 1979; Leach 1940b: 224; Linnane 1984; Livingston et al. 1988: 5; Loomis, Hofacker, & Tucker 1985: 12, 1986; Lucht 1966: 31; Lucht & Moore 1963: 18; Lyon 1959b: 323–327; Lyons 1956: 602; Mahoney, Moore, & Schenk 1979; Marlett 1931: 47, 1933: 23; Massey 1956b: 110; Mathiesen 1952: 304; McGregor 1977b; McGregor et al. 1977: 25; Molnar et al. 1969: 118; Moore, J. A., Mahoney, & Schenk 1981; Moore, J. A., Schenk, & Hatch 1978; Nagel 1956: 1; Neal 1979: 817; Orr, P. W. 1963a, 1963b, 1966; Orr, P. W. & Pettinger 1964; Orr, P. W., Pettinger, & Dolph 1965, 1966; Ostmark 1956: 7; Ostmark & Wilford 1956: 6, 13; Overhulser 1986; Owen 1986: 8; Pettinger 1979; Pettinger & Dolph 1967: 29, 1969, 1970: 9, 1971: 7; Pettinger & Johnson 1973a, 1973b: 1, 1974; Pierce, J. R. 1966: 14, 1970: 11, 1971: 12; Pierce, J. R. & Srago 1973: 17; Pierce, J. R., Wood, & Fujii 1977: 15; Poinar 1971; Price 1957: 81–100; Raffa et al. 1985; Ragenovich 1979, 1980b: 21; Robinson, L. A. & Dooling 1978: 11; Rogers & Hessburg 1985; Rogers, T. J. 1981; Rudinsky & Terriere 1959: 485–488; Ruppel 1967: 87; Ruppel & Pass 1970: 23; Ryker & Rudinsky 1979: 207; Salman 1933a: 133; Schabel 1971; Schenk et al. 1976, 1977; Schuder 1969: 74; Schultz & Allison 1982; Schwandt et al. 1986; Seal 1964; Silver & Ross 1961: 102, 1962b: 112, 1963a: 111; Smith, R. F. & Huffaker 1974; Smith, R. H. & Roettgering 1982; Smith, R. H., Jr. & Dale 1981; Smith, R. H., Jr. et al. 1984; Stevens 1956: 1, 1971: 7; Stipe et al. 1987; Struble 1931: 775, 1937d: 1–15, 1957: 1–18; Swaine 1918a: 53; Teillon et al. 1973; Tunnock 1966: 22; Tunnock & Dooling 1977: 28; Vogler & Dale 1982; Vogler & Schultz 1985; Wear & Buckhorn 1955: 13; Wood, D. L. 1980b; Woods 1969; Wright, L. C., Berryman, & Gurusiddaiah 1979; Yasinski 1956: 1–3; Yasinski & Pierce 1957: 9, 12–13. **(cc)** Amman 1972c: 528; Anonymous 1963z, 1970k; Ashraf 1968b, 1969: 3155–3156; Ashraf & Berryman 1969, 1970a, 1970b; Basham 1959: 295; Bedard 1933a; Berryman 1966a: 519, 1968a, 1968c: 1138–1147, 1969b: 1033–1041, 1970b, 1973, 1974: 552, 1987, 1988; Berryman & Ferrell 1988; Berryman & Pienaar 1973; Bongberg 1962; Bordasch & Berryman 1977; Burks 1979: 744; Bushing 1965: 467; Bushing & Bright 1965: 204; Chapman 1969a; DeLeon 1934b; DeMars, Ferrell, & Ostrosina 1988; Dewey, Ciesla, & Meyer 1974; Eaton 1941; Felix, Uhrenholdt, & Parmeter 1971; Ferrell 1971, 1973a, 1973b, 1978, 1983, 1986a; Ferrell, Ostrosina, & DeMars 1988; Ferrell & Smith 1976; Filip, Christiansen, & Park 1989; Francke-Grosmann 1952a, 1956b; Frye 1971b: 26; Furniss, R. L. & Carolin 1977: 404; Gerber, Tonks, & Ross 1983; Graham 1952; Hanover 1975; Hertert, Miller, & Partridge 1975; James & Goheen 1981; James, Stewart, & Williams 1984; Kaya 1984; Keen 1938: 119; Kinn 1971; Kirtibutr & Schenk 1977; Laumond & Ritter 1973; Leach 1940b: 224; Lientier & Berryman 1988; Livingston 1971b, 1980; Livingston & Berryman 1972; Marsh 1979: 150; Mason, W. R. M. 1978; Massey 1958: 26–27, 1963, 1964a: 133–155, 1964b, 1966a: 384–386; Mathiesen 1952: 304; Matthews 1960; Mattson & Haack 1987; McGregor, Williams, & Carlson 1977; Muesebeck 1942: 100, 1950: 137; Ostrosina 1989; Otvos & Stark 1985; Phaff & Yoneyama 1961; Poinar 1971, 1975: 169; Raffa & Berryman 1987; Raffa et al. 1985; Reid 1957c: 111; Richerson, J. V. & Borden 1972a; Russell & Berryman 1976; Ryan & Rudinsky 1962: 758; Singh 1977: 104; Stark, R. W. & Borden 1965b; Stevens 1971; Struble 1957: 1–18; Tehon 1942: 238; Thomas, G. M. & Poinar 1973: 276; Thompson, W. R. 1943: 107; Thompson, W. R. & Simmonds 1964: 36, 1965: 6; Wickman 1977; Wong, B. L. & Berryman 1977; Woodring & Moser 1970; Wright, E. 1935: 525–538, 1938: 759; Wright, L. C., Berryman, & Gurusiddaiah 1979; Wright, L. C., Berryman, & Wickman 1984. **(hb)** Anderson, R. F. 1960: 236; Anonymous 1963z; Ashraf & Berryman 1969: 1–23; Beatty 1983; Berryman 1968b, 1968c, 1969a, 1970b, 1973, 1974: 580, 1988; Berryman & Ashraf 1970: 1229–1236; Berryman & Ferrell 1988; Berryman & Pienaar 1973; Bongberg 1959a; Bright 1976d: 35; Bright & Stark 1973: 14; Browne 1968: 646; Chamberlin 1939: 230, 1958: 46; Coulson & Witter 1984: 541; Doane et al. 1936; Edson 1967: 27; Ferrell 1969b, 1971, 1986a; Furniss, R. L. & Carolin 1977: 404; Gerber, Tonks, & Ross 1983; Graham 1952; Hagle et al. 1987: 44; Hopkins 1899b: 10; Johnsey 1984; Keen 1938: 119, 1952c: 158; Kirkendall 1984: 237; Lyons 1956: 602; Ryker & Rudinsky 1979: 207; Scott & Berryman 1971, 1972; Stark, R. W. & Borden 1965b; Stevens 1956a: 1, 1971; Struble 1937d: 1–15, 1957: 1–18; Swaine 1918a: 53; Wollerman 1979; Wood, S. L. 1982b: 441; Woods 1969; Wright 1938: 759–773. **(ds)** Allen 1969: 14; Amman 1972c: 528; Anderson, R. F. 1960: 236; Anonymous 1958a: 7, 1960: 10, 1962i, 1963j, 1963k, 1963y, 1964u, 1966f, 1967f, 1968g, 1969e, 1969f, 1969i, 1969m, 1972t, 1973c, 1974f, 1975d, 1975g, 1976f, 1976g, 1976h, 1976n, 1977h, 1977i, 1978a, 1978b: 34, 1978f, 1978g, 1978h: 4, 1979e: 4, 1979f, 1980a: 30, 1980m: 30, 1981g, 1981j, 1982c, 1983d, 1983f, 1984f; Bedard 1938a; Berryman 1968a, 1968b: 1138, 1969, 1973, 1988; Berryman & Ashraf 1970: 1194–1196; Ber-

- ryman & Ferrell 1988; Berryman & Pienaar 1973; Blackwelder 1939; Bongberg 1956a; Bongberg & Bennett 1960: 1; Bordasch & Berryman 1977; Bright 1976d: 35; Bright & Stark 1973: 14; Browne 1968: 646; Butovitsch 1929: 10; Chamberlin 1917, 1918a, 1925; Chittenden 1890; Cockerell et al. 1907; Craighead & Middleton 1930; Currie 1905; Curtis & Johnson 1975; Downing 1963: 7; Edson 1967: 27; Essig 1926: 512, 1958: 512; Felix, Uhrenholdt, & Parmeter 1971; Ferrell 1971, 1974, 1983, 1986a; Frye 1971b: 26; Furniss, R. L. & Carolin 1977: 404; Gast et al. 1989: 385; Gemminger & Harold 1872: 2696; Hagedorn 1910d: 89; Hall & Easton 1960; Henshaw 1882: 269, 1885: 149; Hertert, Miller, & Partridge 1975; Holroyd & Barrett 1966: 12; Hopping 1922; Keen 1929a: 12, 1938: 119, 1949a: 93, 1952c: 155; Kirtibutr & Schenk 1977: 381; Kleine 1913b: 152, 1914b: 407, 1934a: 169; Laursen 1979; Leng 1920: 337; Livingston & Berryman 1972; Mank 1934: 81; Marchant & Borden 1976; McComb et al. 1953: 3; Patterson & Hatch 1945: 149; Rice 1933: 1079–1083; Ruppel 1967: 87; Salman 1933a: 133; Schuder 1969: 74; Snow 1906: 175, 1907: 188; Stark, R. W. & Borden 1965: 1162; Stevens 1971; Swaine 1909: 108; Wood, S. L. 1972a: 397, 1982b: 441; Woods 1969; Wright, L. C., Berryman, & Gurusiddaiah 1979. (tx) Anderson, R. F. 1960: 236; Anonymous 1963e: 16; Benoit 1986: 238; Blackman 1934: 5, 9, 22; Bright 1976d: 28, 35, 195, 215; Bright & Stark 1973: 147; Butovitsch 1929: 10; Chamberlin 1939: 230, 1958: 46; Edson 1967: 27, 52; Hagedorn 1910a: 124; Keen 1929a: 12; Kirtibutr & Schenk 1977: 382; LeConte 1868: 167, 1876: 373; Livingston & Berryman 1972: 1795; Muesebeck 1942: 100, 1950: 137; Ryker & Rudinsky 1979: 204, 207; Swaine 1909: 108, 1910a: 33, 1918a: 53–54; Wood, S. L. 1962: 81, 1967: 120, 1972a: 397, 1982b: 441; Woods 1969: fig. 4. (ms) Bongberg 1959a; Hatch 1938: 193; Pettinger 1979; Ruppel & Pass 1970: 23; Schabel 1971; Scott & Berryman 1971; Smith, R. F. & Huffaker 1973: 37.
- ventrosus** **Schevyrew** 1890c: 98, 470. Holotype ♂; Vladivostok, USSR; not located.
Figures: Michalski 1973a: pl. 46.
Distribution: Asia (Sakhalin Island and E USSR).
Hosts: *Ulmus carpinifolia*, *U. propinqua*.
References: (ay) Butovitsch 1929: 10, 47. (cn) Goidanich & Goidanich 1934. (hb) Budkov 1897; Krivolutskaya 1973: 130; Stark 1952: 121. (ds) Budkov 1897; Butovitsch 1929: 10, 47; Heyden 1881: 177, 1893: 177, 1898: 76; Hagedorn 1910d: 89; Kleine 1913b: 152, 1914b: 249, 1934a: 169; Krivolutskaya 1956: 109–110, 1965a: 226, 1973: 130; Krivolutskaya & Kupyanskaya 1970; Kurenzov 1936a: 109, 111, 1938a: 58; Michalski 1973a: 134; Reitter 1894a: 41; Schevyrew 1890c: 98, 470; Semenov 1904: 38; Sokanovskii 1966: 381, 389; Stark 1952: 121. (tx) Butovitsch 1929: 10, 47; Heyden 1893: 177, 1910a: 124; Krivolutskaya 1958: 110; Kurenzov 1941a: 84–85; Michalski 1973a: 134–137; Reitter 1894a: 41, 1913a: 19; Schedl 1934f: 1633, 1948b: 41; Schevyrew 1890c: 98, 470, 1893: 125; Semenov 1904: 38; Sokanovskii 1966: 381, 189; Stark 1952: 121.
- virgatus** **Bright** 1972: 1490. Holotype ♂; Cerro Potosi, Nuevo Leon, Mexico; CNCI, Ottawa.
Distribution: North America (Nuevo Leon in Mexico).
Hosts: *Pseudotsuga menziesii*.
References: (ds) Wood, S. L. 1982b: 434. (tx) Bright 1972: 1490; McNamara 1977: 199; Wood, S. L. 1982b: 434.
- yablonianus** **Murayama** 1943b: 96. Holotype ♂; Yablonia (Manchoukuo); Murayama Collection in USNM, Washington.
Distribution: Asia ("Manchukuo" in China).
References: (ds) Murayama 1943b: 96. (tx) Murayama 1943b: 96.
- zaitzevi** **Butovitsch** 1929: 31. Holotype ♂; Borjomi, Georgia, USSR; NHR, Stockholm.
Figures: Michalski 1973a: pl. 15, Rudnev & Stepanova 1960: 774.
Distribution: Europe (Georgia and Ukraine in W USSR).
Hosts: *Ulmus carpinifolia*.
References: (ay) Butovitsch 1929: 31. (cn) Pfeffer 1979: 149. (cc) Pfeffer 1979: 149. (hb) Lindeman, G. V. 1978; Postner 1974: 385; Rudnev & Stepanova 1960: 773, 1961; Stark 1952: 101. (ds) Butovitsch 1929: 31; Kleine 1934a: 169; Michalski 1973a: 57; Postner 1974: 385; Sokanovskii 1960, 1966: 387; Stark 1952: 101. (tx) Butovitsch 1929: 31; Michalski 1973a: 57–59, pl. 15; Postner 1974: 385; Rudnev & Stepanova 1960: 774; Schedl 1934f: 1633, 1948b: 54; Sokanovskii 1960: 674, 1966: 382, 387; Stark 1952: 101–102.

Tribe Ctenophorini Chapuis

Ctenophoridae (used as a tribe)

References: Chapuis 1869: 49, 1873: 257.

Ctenophorini

References: Wood, S. L. 1978a: 112, 1982b: 64, 1986a: 59.

Problechilidae (used as a tribe)

References: Eichhoff 1878b: 34, 46, 167, 298.

Hexacolidae (used as a tribe)

References: Eichhoff 1878b: 35, 57, 306.

Hexacolides

References: Blandford 1898b: 173.

Hexacolinae

References: Hopkins 1915c: 225.

Hexacolini

References: Leng 1920: 337.

Genus *Microborus* Blandford

MICROBORUS BLANDFORD 1897a: 175. Type-species: *Microborus boops* Blandford, monobasic. *Pseudocrypturgus* Eggers 1919: 236. Type-species: *Pseudocrypturgus camerunus* Eggers = *Microborus boops* Blandford, monobasic. Synonymy: Wood 1961d: 101.

References: (tx) Eggers 1919: 236; Schedl 1962r: 86; Wood, S. L. 1961d: 101.

Keys: Wood 1982b: 452.

Notes: (3) All species of this genus breed exclusively in the phellogen (cork cambium) area of very thick-barked hosts.

References: (hb) Wood, S. L. 1986a: 60. (ds) Blackwelder 1947: 786; Hagedorn 1910d: 76; Townsend 1928; Wood, S. L. 1986a: 60. (tx) Blandford 1897a: 175; Bright 1972d: 25, 41; Eggers 1933b: 18, 1935a: 75, 1940a; Hagedorn 1910a: 119–120; Hopkins 1914: 125, 132, 1915c: 227; Nunberg 1961b: 613; Schedl 1952d: 345, 1957d: 14, 1961k: 736, 1962r: 86, 1977a: 104; Wichmann 1914b: 143; Wood, S. L. 1961d: 101, 1982b: 451–455, 1986a: 60.

aberrans Wichmann 1914b: 143. Syntypes, sex? Nouveau Chantier, Guyane Française; Wichmann Collection.

Distribution: Antilles Islands (Guadeloupe), South America (Brazil/ Cayenne/ Venezuela).

Hosts: *Clusia* sp.

References: (ds) Blackwelder 1947: 786; Kleine 1914b: 339. (tx) Eggers 1933b: 19, 1940a: 131; Schedl 1962r: 86; Wichmann 1914b: 143; Wood, S. L. 1972e: 196.

setulosus Eggers 1933b: 19. Holotype, sex? Franz. Guayana; MNHN, Paris. Synonymy: Schedl 1962r: 87.

References: (ds) Blackwelder 1947: 786. (tx) Eggers 1933b: 19, 1940a: 131; Schedl 1962r: 86–87.

imitans Eggers 1940a: 131. Holotype ♂; Insel

Guadeloupe; USNM, Washington. Synonymy: Schedl 1962r: 86.

References: (ds) Bright 1985c: 172. (tx) Anderson, W. H. & Anderson 1971: 15; Bright 1985c: 172; Eggers 1940a: 131; Schedl 1962r: 86.

ambitus Wood 1969b: 13. Holotype ♀; 25 km E Coatzacoalcas, Veracruz, Mexico; Wood Collection.

Distribution: North America (Tabasco, Veracruz in Mexico).

Hosts: Tree limbs and bole, not identified.

References: (hb) Wood, S. L. 1982b: 454. (ds) Wood, S. L. 1982b: 454. (tx) Wood, S. L. 1969b: 13, 1982b: 454.

bicolor Eggers 1933b: 19. Holotype ♀; Franz. Guayana (Nouveau Chantier); MNHN, Paris.

Distribution: South America (Cayenne).

References: (ds) Blackwelder 1947: 786. (tx) Eggers 1933b: 19; Schedl 1962r: 86; Wood, S. L. 1972e: 196.

boops Blandford 1897a: 175. Holotype ♀; Tamahu, Alta Verapaz, Guatemala; BMNH, London.

Figures: Nunberg 1965b: pl. 1, Schedl 1961k: 736.

Distribution: Africa (introduced into: Cameroon/ Ghana), Antilles Islands (Jamaica), North America (Costa Rica/ Guatemala/ Honduras/ Panama), South America (Cayenne).

Hosts: *Rhedia edulis*.

References: (ay) Van Ryn-Tournel 1975. (hb) Wood, S. L. 1982b: 454. (ds) Blackwelder 1947: 786; Bright 1985c: 172; Hagedorn 1910d: 76; Kleine 1913b: 144, 1914b: 339, 370; Wood, S. L. 1977a: 72, 1982b: 454. (tx) Blandford 1897a: 175; Bright 1985c: 172; Eggers 1933b: 19; Hagedorn 1910a: 120; Hopkins 1914: 125; Lucas 1920: 412; Wichmann 1914b: 143; Wood, S. L. 1961d: 101, 1982b: 454.

camerunus Eggers 1919: 236 (*Pseudocrypturgus*). Syntypes, sex? Kamerun; Schreiner Collection in Hamburg Museum, lost, 1 syntype in Schedl Collection in NHMW, Wien. Synonymy: Wood 1982b: 454.

Notes: (1) Schedl 1979c: 51 (citation of holotype invalid).

References: (ds) Bright 1972d: 42; Nunberg 1952: 18, 1965b: 18; Schedl 1959q: 705, 1961k: 736, 1962h: 58, 1962r: 1078, 1966c: 224, 1972e: 281, 1977a: 106. (tx) Anderson, W. H. & Anderson 1971: 8; Bright 1972d: 42; Browne 1965a: 188; Eggers 1919: 236; Nunberg 1952: 18, 1964: 18, 1965b: pl. 1; Schedl 1957d: 14, 1959q: 705, 1961k: 736–737, 1962h: 58, 1962r: 87, 1963j: 479, 1966c: 224, 1977a: 106, 1979c: 51; Wood, S. L. 1961d: 101, 1982b: 454.

lautus Wood 1961d: 101. Holotype ♀; Leper Island, San Juan, Puerto Rico; USNM, Washington.

Distribution: Antilles Islands (Puerto Rico).

Hosts: *Nerium* twigs.

References: **(ds)** Bright 1985c: 172. **(tx)** Bright 1985c: 172; Wood, S. L. 1961d: 101.

lectus Wood 1971: 17. Holotype ♂; La Carbonera Experimental Forest, 50 km NW Merida, Merida, Venezuela; Wood Collection.

Distribution: Antilles Islands (Dominica), South America (Venezuela).

Hosts: *Chusia* limbs and bole.

References: **(hb)** Wood, S. L. 1971: 17. **(ds)** Bright 1981c: 155, 1985c: 172. **(tx)** Bright 1985c: 172; Wood, S. L. 1971: 17.

limatus Wood 1969b: 13. Holotype ♂; Finca Gromaco on Rio Coto Brus, Puntarenas, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: (?) *Protium* sp.

References: **(hb)** Wood, S. L. 1982b: 453. **(ds)** Wood, S. L. 1982b: 453. **(tx)** Wood, S. L. 1969b: 13, 1982b: 453.

mexicanus Wood 1981: 123. Holotype ♂; Las Piedras, Moyotepec, Morelia, Mexico; Wood Collection.

Figures: Atkinson et al. 1986: 59.

Distribution: North America (Morelos in Mexico).

Hosts: *Bursera* sp.

References: **(hb)** Atkinson et al. 1986: 54. **(ds)** Atkinson et al. 1986: 54; Wood, S. L. 1982b: 453. **(tx)** Atkinson et al. 1986: 59; Wood, S. L. 1981: 123, 1982b: 453.

Genus *Pycnarthrum* Eichhoff

PYCNARTHURUM EICHHOFF 1878b: 41, 104. Type-species: *Pycnarthrum gracile* Eichhoff = *Hypoborus hispidum* Ferrari, subsequent designation by Hopkins 1914: 128.

Nemobius Chapuis 1869: 41. Type-species: *Nemobius lambottei* Chapuis = *Hypoborus hispidum* Ferrari, subsequent designation by Hopkins 1914: 128, preoccupied by Serville 1839.

References: **(tx)** Blandford 1897a: 116; Chapuis 1869: 41, 1873: 249; Gemminger & Harold 1872: 2673; Hopkins 1914: 128; Vickery 1963: 17.

Monobius Hopkins 1914: 125. Type-species: *Nemobius lambottei* Chapuis = *Hypoborus hispidum* Ferrari, automatic, an isotypical junior synonym.

References: **(tx)** Hopkins 1914: 125.

Nomebius Navas 1915: 34. Type-species: *Nemobius lambottei* Chapuis = *Hypoborus hispidum* Ferrari, automatic, an isotypical junior synonym.

References: **(tx)** Navas 1915: 34.

Keys: Wood 1982b: 455.

References: **(hb)** Wood, S. L. 1986a: 60. **(ds)** Wood, S. L. 1986a: 60. **(tx)** Blandford 1897a: 174–177; Bright 1972d: 43; Eichhoff 1878b: 41, 104; Hagedorn 1910a: 115–116, 1910d: 76; Hop-

kins 1914: 128; Wood, S. L. 1982b: 455–461, 1986a: 60.

amersum Wood 1983: 658. Holotype ♂; Tenacatita, Jalisco, Mexico; Wood Collection.

Distribution: North America (Jalisco in Mexico).

Hosts: *Brosimum alicastrum*.

References: **(ec)** Equihua & Atkinson 1986: 627. **(hb)** Equihua & Atkinson 1986: 627. **(ds)** Atkinson & Equihua 1986: 627; Estrada & Atkinson 1988: 204. **(tx)** Wood, S. L. 1983: 658.

brosimi Wood 1971: 14. Holotype ♂; 9 km S Barancas, Barinas, Venezuela; Wood Collection.

Distribution: North America (Costa Rica), South America (Colombia/ Venezuela).

Hosts: *Brosimum* sp. (Charo amarillo).

Notes: (1) Wood 1982b: 461 (correction of lapsus calami).

References: **(ds)** Atkinson & Equihua 1988: 100. **(tx)** Wood, S. L. 1971: 14, 1982b: 461.

carinatum Wood 1971: 13. Holotype ♂; near Leonpampa, Dept. Huanuco, Peru, 800 m; Wood Collection.

Distribution: South America (Peru).

References: **(tx)** Wood, S. L. 1971: 13.

fulgidum Wood 1977b: 217. Holotype ♂; 8 km S Colonia, Valle de Cauca, Colombia; Wood Collection.

Distribution: South America (Colombia).

Hosts: *Guarea trichiloides*.

References: **(tx)** Wood, S. L. 1977b: 217.

funerium Wood 1971: 11. Holotype ♀; La Ceiba, Atlantida, Honduras; Wood Collection.

Distribution: North America (Honduras).

References: **(ec)** Equihua & Atkinson 1986: 627. **(hb)** Equihua & Atkinson 1986: 627. **(ds)** Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 458. **(tx)** Wood, S. L. 1971: 11, 1982b: 458.

hispidum (Ferrari) 1867: 19 (*Hypoborus*). Holotype, sex?; Cuba; NHMW, Wien, lost from pin.

Figures: Atkinson et al. 1986: 61.

Distribution: Antilles Islands (Cuba/ Guadeloupe/ Jamaica/ Puerto Rico/ Virgin Islands), North America (Costa Rica/ El Salvador/ Guatemala/ Honduras/ almost all states of Mexico/ Nicaragua/ Panama/ Florida, Texas in USA), South America (Guyana/ Venezuela).

Hosts: *Ficus* spp.

References: **(cn)** Anonymous 1963r. **(ec)** Equihua & Atkinson 1986: 627. **(hb)** Atkinson & Equihua 1985b: 232; Atkinson et al. 1986: 54; Burgos & Saucedo 1983: 75; Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 458. **(ds)** Anonymous 1963r; Atkinson & Equihua 1985b: 232, 1986a: 420; Atkinson et al. 1986: 54; Blackwelder 1947: 786; Bright 1972d: 44, 1985c: 172; Burgos & Saucedo 1983: 75; Equihua & Atkinson 1986: 627; Estrada & Atkinson 1988: 204; Gemminger & Harold 1872: 2684; Schedl 1972g: 39, 1976a: 50, 1977e: 42; Wood, S. L. 1957c: 402, 1982b:

- 45S. (tx) Atkinson et al. 1986: 59; Bright 1972b: 44, 1985c: 172; Eggers 1940a: 108; Eichhoff 1878b: 106; Ferrari 1867: 19; Schedl 1955d: 273; Wood, S. L. 1957c: 402, 1973c: 183, 1982b: 458.
- lambottei* Chapuis 1869: 42. Lectotype ♀; Mexique, Teapa; IRSNB, Brussels, designated by Wood 1973c: 183. Synonymy: Wood 1973c: 183.
- References: (ds) Blackwelder 1947: 786; Blandford 1897a; Ferrer 1942; Hagedorn 1910d: 76; Kleine 1913b: 144, 1914b: 352, 370; Schedl 1963c: 157. (tx) Blair 1933: 487; Blandford 1897a; Chapuis 1869: 42, 1873: 250; Eggers 1951: 151; Gemminger & Harold 1872: 2673; Hagedorn 1910a: 116; Hopkins 1914: 125; Lucas 1920: 560; Schedl 1940a: 334–335; Wood, S. L. 1973c: 183. (ms) Lucas 1920: 560.
- gracilis* Eichhoff 1878b: 104. Lectotype ♂; Cuba insula Americana; USNM, Washington, designated by Wood 1973c: 183. Synonymy: Wood 1973c: 183.
- References: (ds) Hagedorn 1910d: 76; Kleine 1913b: 144, 1914b: 378. (tx) Eichhoff 1878a: 383, 1878b: 104–106; Hagedorn 1910a: 116; Hopkins 1914: 128; Wood, S. L. 1973c: 183.
- quadraticolle* Eichhoff 1878b: 106. Lectotype ♂; Mexico; USNM, Washington, designated by Wood 1973c: 183. Synonymy: Wood 1973c: 183.
- References: (tx) Eggers 1951: 151; Eichhoff 1878a: 383, 1878b: 106; Schedl 1940a: 335; Wood, S. L. 1973c: 183.
- transversum* Blandford 1897a: 177. Lectotype ♀; Mirandilla, Guatemala; BMNH, London, designated by Wood 1973c: 183. Synonymy: Wood 1973c: 183.
- References: (ds) Blackwelder 1947: 786; Hagedorn 1910d: 76; Kleine 1913b: 144, 1914b: 370. (tx) Blandford 1897a: 177; Hagedorn 1910a: 116; Schedl 1952h: 68; Wood, S. L. 1973c: 183.
- reimoseri* Schedl 1934e: 208. Syntypes ♀; Jimenez on Osa Peninsula, and Volcan Irazu, Costa Rica; Schedl Collection in NHMW, Wien. Synonymy: Wood 1973c: 183.
- References: (ds) Blackwelder 1947: 786; Ferrer 1942; Schedl 1963c: 157. (tx) Schedl 1934e: 208, 1940a: 334, 1940c: 206, 1979c: 210; Wood, S. L. 1973c: 183.
- inornatum* Wood 1971: 11. Holotype ♀; Olanchito, Yoro, Honduras; Wood Collection.
- Distribution: North America (Honduras).
- References: (ds) Wood, S. L. 1982b: 457. (tx) Wood, S. L. 1971: 11, 1982b: 457.
- insulare* Blair 1933: 487. Syntypes, sex?; Albermarle Id., Tagus Cove 200 ft., and Charles Id. sea level, Tower Id. and Hood Id, Galapagos; CAS, San Francisco.
- Distribution: North America (Isla del Coco in Costa Rica), South America (Galapagos Islands).
- References: (ds) Blackwelder 1947: 786; Bright 1982a: 127; Mutchler 1938: 19; Schedl 1974e: 50, 1978c: 293. (tx) Blair 1933: 487; Schedl 1974e: 50.
- kleinei* Eggers 1951: 151. Lectotype ♂; Brasil (Corumba, in Staate Matto Grosso); USNM, Washington, designated by Anderson & Anderson 1971: 17.
- Distribution: South America (Brazil).
- Notes: (3) Schedl 1979c: 127 (cites *simile* Eggers, nomen nudum).
- References: (ds) Schedl 1973d: 154. (tx) Anderson, W. H. & Anderson 1971: 17; Eggers 1951: 151; Schedl 1979c: 127.
- lucidum* Wood 1971: 12. Holotype ♂; Finca Gromaco on Rio Coto Brus, Puntarenas, Costa Rica; Wood Collection.
- Distribution: North America (Costa Rica).
- Hosts: *Cedrela mexicana*.
- References: (hb) Wood, S. L. 1982b: 460. (ds) Wood, S. L. 1982b: 460. (tx) Wood, S. L. 1971: 12–13, 1982b: 460.
- pallidum* (Chapuis) 1869: 41 (*Nemobius*). Syntypes, sex?; Guadeloupe; IRSNB, Brussels.
- Distribution: Antilles Islands (Guadeloupe).
- References: (cn) Mumford 1960: 37. (ds) Blackwelder 1947: 786; Dash 1917: 56–60; Fleutiaux & Salle 1890: 456; Hagedorn 1910d: 76; Kleine 1913b: 144, 1914b: 379; Mumford 1960: 37; Schedl 1972g: 42, 1976a: 50; Tucker 1952: 347. (tx) Blair 1933: 487; Chapuis 1869: 41, 1873: 249; Eggers 1940a: 108, 1951: 151; Gemminger & Harold 1872: 2673; Hagedorn 1910a: 116.
- perditum* Wood 1971: 12. Holotype ♂; La Ceiba, Atlantida, Honduras; Wood Collection.
- Distribution: North America (Honduras).
- References: (ds) Wood, S. L. 1982b: 460. (tx) Wood, S. L. 1971: 12, 1982b: 460.
- reticulatum* Schedl 1940a: 335. Lectotype ♀; Tonala, Chiapas, Mexico; Schedl Collection in NHMW, Wien, designated by Wood 1974d: 287.
- Distribution: Antilles Islands (Jamaica), North America (Guatemala/ Honduras/ Chiapas in Mexico), South America (Venezuela).
- Hosts: *Ficus* spp.
- References: (cc) Equihua & Atkinson 1986: 627. (hb) Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 457. (ds) Atkinson & Equihua 1988: 100; Blackwelder 1947: 786; Bright 1972d: 43, 1982b: 164, 1985c: 172; Equihua & Atkinson 1986: 627; Estrada & Atkinson 1988: 205; Ferrer 1942; Wood, S. L. 1982b: 457. (tx) Bright 1972d: 43, 1985c: 172; Schedl 1940a: 335, 1979c: 210; Wood, S. L. 1973c: 183, 1974d: 287, 1982b: 457.
- fiei* Wood 1971: 11. Holotype ♂; Olanchito, Honduras; Wood Collection. Synonymy: Wood 1974d: 287.
- References: (tx) McNamara 1977: 199; Wood, S. L. 1971: 11–12, 1974d: 287.

setulosum Waterhouse 1890: 553. Syntypes 2, sex?; Fernando Noronha; BMNH, London.
Distribution: South America (Brazil).

Hosts: *Ficus* sp.

References: (ds) Alvarenga 1962: 24; Blackwelder 1947: 786; Hagedorn 1910d: 76; Kleine 1913b: 144, 1914b: 332. (tx) Hagedorn 1910a: 116; Waterhouse 1890: 553.

subcarinatum Wood 1971: 13. Holotype ♂; 8 km SW Bumbum, Barinas, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Brosimum* sp.

References: (tx) Wood, S. L. 1971: 13.

uniseriatum Schedl 1973a: 370. Holotype ♀?; Brasilien, Faz. Taparinha, prox. Santarem, Parana; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1973a: 370, 1979c: 261.

Genus *Gymnochilus* Eichhoff

GYMNOCHILUS EICHHOFF 1868a: 399. Type-species: *Gymnochilus zonatus* Eichhoff, monobasic.

Problechilus Eichhoff 1878b: 46, 167. Type-species: *Gymnochilus zonatus* Eichhoff, automatic, an isotypical junior synonym.

References: (tx) Blandford 1897a: 171–173; Eggers 1932a: 226, 1933g: 19; Eichhoff 1878b: 46, 167; Hagedorn 1910a: 53; Wood, S. L. 1972c: 140.

Meringopalpus Hagedorn 1905: 547. Type-species: *Meringopalpus fallax* Hagedorn = *Gymnochilus zonatus* Eichhoff. Synonymy: Eggers 1932: 226.

References: (tx) Eggers 1932a: 226, 1933g: 19; Hagedorn 1905: 547, 1910a: 52–53.

Keys: Wood 1982b: 462.

Notes: (3) *Gymnochila* Dejean 1835 was incorrectly regarded as a homonym by Eichhoff 1878b: 167.

References: (hb) Wood, S. L. 1986a: 60. (ds) Blackwelder 1947: 786; Wood, S. L. 1986a: 60. (tx) Eichhoff 1868a: 399, 1878b: 46, 167; Wood, S. L. 1972c: 140, 1982b: 461–466, 1986a: 60.

alni Wood 1971: 14. Holotype ♂; 10 km NE Teziutlan, Puebla, Mexico; Wood Collection.

Figures: Atkinson et al. 1986: 24.

Distribution: North America (Mexico, Puebla in Mexico).

Hosts: *Alnus* sp.

References: (hb) Atkinson & Equihua 1985b: 232; Atkinson et al. 1986: 26; Burgos & Saucedo 1983: 77; Wood, S. L. 1982b: 464. (ds) Atkinson & Equihua 1985a: 80, 1985b: 232; Atkinson et al. 1986: 26; Burgos & Saucedo 1983: 77; Wood, S. L. 1982b: 464. (tx) Atkinson et al. 1986: 24; Muskus, A. 1984: 76; Wood, S. L. 1971: 14, 1982b: 464.

alternatus (Eggers) 1943a: 345 (*Problechilus*). Holotype ♂; Bolivia (Cochabamba); MNHN, Paris.

Distribution: South America (Bolivia).

References: (tx) Eggers 1943a: 345.

brevis (Eggers) 1932a: 231 (*Problechilus*). Holotype, sex?; Bolivien (Cochabamba); USNM, Washington.

Distribution: South America (Bolivia).

References: (ds) Blackwelder 1947: 786. (tx) Anderson, W. H. & Anderson 1971: 8; Eggers 1932a: 231–232; Schedl 1979c: 47.

consocius (Blandford) 1897a: 171 (*Problechilus*). Holotype ♂; Cerro Zunil, Guatemala; BMNH, London.

Distribution: North America (Guatemala), South America (Brazil/ Venezuela).

Hosts: *Ficus* spp.

References: (hb) Wood, S. L. 1982b: 465. (ds) Blackwelder 1947: 786; Hagedorn 1910d: 34; Kleine 1912b: 190, 1914b: 358; Wood, S. L. 1982b: 465. (tx) Blandford 1897a: 171; Eggers 1932a: 227–232; Hagedorn 1910a: 53; Schedl 1951m: 87; Wood, S. L. 1974d: 281, 1982b: 465.

trimaculatus Schedl 1935d: 91 (*Problechilus*). Holotype ♀; Venezuela [probably Colonia Tovar]; Schedl Collection in NHMW, Wien. Synonymy: Wood 1974d: 281.

References: (ds) Blackwelder 1947: 786. (tx) Schedl 1935d: 91; Wood, S. L. 1974d: 281.

novateutonicus Schedl 1936i: 105 (*Problechilus*). Holotype, sex?; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 173.

References: (ds) Blackwelder 1947: 786; Schedl 1966f: 84, 1967d: 2, 1972g: 42, 1973d: 154. (tx) Schedl 1936i: 105; Wood, S. L. 1989: 173.

glaber (Schedl) 1951m: 87 (*Problechilus*). Holotype, sex?; Peru, Marcapata; Eggers Collection, in NHMW, Wien.

Distribution: South America (Peru).

References: (tx) Schedl 1951m: 87, 1979c: 104.

insularis (Eggers) 1932a: 232 (*Problechilus*). Holotype, sex?; Guadeloupe (Trois Rivières); MNHN, Paris.

Distribution: Antilles Islands (Dominica, Guadeloupe).

References: (ds) Blackwelder 1947: 786; Bright 1981c: 154, 1985c: 172. (tx) Bright 1985c: 172; Eggers 1932a: 232, 1940a: 108; Schedl 1979c: 126.

laevicollis (Eggers) 1932a: 230 (*Problechilus*). Holotype, sex?; Bolivien (Cochabamba); USNM, Washington.

Distribution: South America (Bolivia).

References: (ds) Blackwelder 1947: 786. (tx) Anderson, W. H. & Anderson 1971: 17; Eggers 1932a: 230.

minor (Blandford) 1897a: 172 (*Problechilus*). Lectotype ♂; Guatemala City, Guatemala: BMNH, Washington, designated by Wood 1982b: 462.

Distribution: North America (Costa Rica/ Guatemala/ Honduras/ "Mexico").

Hosts: *Ficus* spp.

References: (**hb**) Burgos & Saucedo 1983: 78; Wood, S. L. 1982b: 464. (**ds**) Atkinson et al. 1986: 54; Blackwelder 1947: 786; Burgos & Saucedo 1983: 78; Hagedorn 1910d: 34; Kleine 1912b: 190, 1914b: 348; Schedl 1970e: 90; Wood, S. L. 1982b: 464. (**tx**) Blandford 1897a: 172; Eggers 1932a: 227; Hagedorn 1910a: 53; Schedl 1951m: 86; Wood, S. L. 1974d: 281, 1982b: 464.

varius Schedl 1951m: 86 (*Problechilus*). Holotype ♀; "Mexico"; Schedl Collection in NHMW, Wien. Synonymy: Wood 1974d: 281.

References: (**tx**) Schedl 1951m: 86; Wood, S. L. 1974d: 281.

pilifer (Eggers) 1932a: 229 (*Problechilus*). Holotype, sex?; Bolivien (Cochabamba); USNM, Washington.

Distribution: South America (Bolivia).

References: (**ds**) Blackwelder 1947: 786. (**tx**) Anderson, W. H. & Anderson 1971: 25; Eggers 1932a: 229; Schedl 1979c: 194.

pilosulus (Eggers) 1932a: 234 (*Problechilus*). Holotype, sex?; Bolivia (Cochabamba); USNM, Washington.

Distribution: South America (Bolivia).

References: (**ds**) Blackwelder 1947: 786. (**tx**) Anderson, W. H. & Anderson 1971: 25; Eggers 1932a: 234.

reitteri Eichhoff 1878b: 169. Lectotype ♂; America borealis (Mexico); USNM, Washington, designated by Wood 1979b: 135.

Distribution: North America (Costa Rica/ Guatemala/ Durango, Michoacan in Mexico/ Nicaragua/ Panama).

Hosts: *Ficus* spp.

References: (**cc**) Equihua & Atkinson 1986: 627. (**hb**) Atkinson & Equihua 1985b: 232; Atkinson et al. 1986: 54; Burgos & Saucedo 1983: 77; Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 463. (**ds**) Atkinson & Equihua 1985b: 232, 1986a: 420, 1988: 90; Atkinson et al. 1986: 54; Blackwelder 1947: 786; Blandford 1897a; Burgos & Saucedo 1983: 77; Equihua & Atkinson 1986: 627; Ferrer 1942; Hagedorn 1910d: 34; Kleine 1912b: 190, 1914b: 349, 358. (**tx**) Blandford 1897a; Eggers 1932a: 227; Eichhoff 1878b: 169, 1898a: 388; Hagedorn 1910d: 53; Schedl 1940a: 336, 1979c: 210; Wood, S. L. 1979b: 135, 1982b: 463.

striatus Eggers 1932a: 227 (*Problechilus*). Holotype ♂; Mexico (Canelas) [probably Durango]; USNM, Washington. Synonymy: Wood 1979b: 135.

References: (**ds**) Blackwelder 1947: 786; Ferrer. (**tx**) Anderson, W. H. & Anderson

1971: 6; Eggers 1932a: 227; Schedl 1940a: 336, 1956b: 30; Wood, S. L. 1979b: 135.

bicolor Eggers 1932a: 228 (*Problechilus*). Holotype ♂; Nicaragua; USNM, Washington. Synonymy: Wood 1979b: 135.

References: (**ds**) Blackwelder 1947: 786. (**tx**) Eggers 1932a: 228; Wood, S. L. 1979b: 135.

zonatus Eichhoff 1868a: 399. Holotype, sex?; Colombia; Hamburg Museum, lost.

Distribution: South America (Colombia/ Venezuela).

Hosts: *Ficus* spp.

References: (**ds**) Blackwelder 1947: 786; Gemminger & Harold 1872: 2693; Hagedorn 1910d: 34; Kleine 1912b: 190, 1914b: 341. (**tx**) Eggers 1931c: 19, 1932a: 226, 232, 1933b: 2, 1933g: 19; Eichhoff 1868a: 399, 1878b: 167, 169; Hagedorn 1910a: 53; Hopkins 1914: 122, 128; Lucas 1920: 537; Wood, S. L. 1974d: 281.

fallax Hagedorn 1905: 548 (*Meringopalpus*). Holotype, sex?; Colonia Tovar, Venezuela; not located. Synonymy: Wood 1974d: 281.

References: (**ds**) Hagedorn 1910d: 19; Kleine 1912b: 175, 1914b: 339. (**tx**) Eggers 1931c: 19, 1932a: 226, 1933b: 2, 1933g: 19; Hagedorn 1905: 547–548, 1910a: 53; Hopkins 1914: 124; Lucas 1920: 404; Wood, S. L. 1974d: 281. (**ms**) Lucas 1920: 404.

freyi Schedl 1966f: 103 (*Problechilus*). Holotype, sex?; Venezuela, Rancho Grande, Maracay, I; Frey Museum, Tützing (now in NHMBS, Basel). Synonymy: Wood 1974d: 282.

References: (**ds**) Schedl 1966f: 79. (**tx**) Schedl 1966f: 103, 1979c: 100; Wood, S. L. 1974d: 282.

Genus *Scolytodes* Ferrari

SCOLYTODES FERRARI 1867a: 77. Type-species: *Scolytodes laevigatus* Ferrari, monobasic.

Hexacolus Eichhoff 1868a: 399. Type-species: *Hexacolus glaber* Eichhoff, monobasic. Synonymy: Wood 1972c: 141.

References: (**tx**) Blandford 1897a: 174, 180–183; Eggers 1940a: 123–141; Eichhoff 1868a: 399, 1878b: 306; Gemminger & Harold 1872: 2694; Hagedorn 1910a: 113–114, 1910d: 76; Schedl 1940c: 203–208, 1952d: 346, 1956a: 30; Wood, S. L. 1957c: 396, 1972c: 141.

Ctenophorus Chapuis 1869: 49. Type-species: *Ctenophorus laevigatus* Chapuis = *Scolytodes chapuisi* Wood, monobasic. Synonymy: Wood 1977b: 207.

References: (**tx**) Chapuis 1869: 49, 1873: 257; Eggers 1931c: 185; Hagedorn 1910a: 112–113, 1910d: 77; Hopkins 1914: 128; Schedl 1952d: 345; Wood, S. L. 1977b: 207.

Prionosceles Blandford 1897a: 177. Type-species: *Prionosceles atratus* Blandford, subsequent designation by Hopkins 1914: 128. Synonymy: Wood 1972a: 141.

References: (**tx**) Blandford 1897a: 177; Eggers

- 1940a: 123–141; Hopkins 1914: 125; Schedl 1952d: 345. 1962r: 85–107; Wood, S. L. 1972c: 141.
- Epomadius* Blandford 1897a: 179. Type-species: *Epomadius culcitatus* Blandford, monobasic. Synonymy: Wood 1977c: 354. References: (tx) Blandford 1897a: 174, 179–180; Hagedorn 1910a: 115, 1910d: 76; Wood, S. L. 1977c: 354.
- Erineophilus* Hopkins 1902a: 34. Type-species: *Erineophilus schwarzi* Hopkins, original designation. Synonymy: Schedl 1952d: 346. References: (tx) Chamberlin 1939: 238–239; Hagedorn 1910a: 133–135, 1910d: 82; Hopkins 1902a: 34; Schedl 1952d: 346; Swaine 1909: 108, 1918a: 39; Wood, S. L. 1957c: 396.
- Hylocurosoma* Eggers 1940a: 135. Type-species: *Hylocurosoma striatum* Eggers, monobasic. Synonymy: Schedl 1952d: 346. References: (tx) Eggers 1940a: 135; Schedl 1952d: 346.
- Hexacolinus* Schedl 1963d: 217. Type-species: *Hexacolinus minutissimus* Schedl, 1963 = *Scolytodes minutissimus* Schedl, 1952, original designation. Synonymy: Wood 1984b: 228. References: (tx) Schedl 1963d: 217; Wood, S. L. 1984b: 228.
- Keys: Wood 1982b: 467. References: (hb) Wood, S. L. 1986a: 60. (ds) Wood, S. L. 1986a: 60. (tx) Eggers 1931c: 185; Ferrari 1867a: 77; Schedl 1952d: 343, 1969a: 202–219; Wood, S. L. 1972c: 141, 1977b: 207, 1977c: 354, 1982b: 467, 1986a: 60.
- acures** Wood 1969b: 15. Holotype ♀; Rio Damitas, Dota Mts., San Jose, Costa Rica; Wood Collection. Distribution: North America (Costa Rica/ Guatemala/ Panama). Hosts: *Cecropis* sp. leaf petioles. References: (hb) Wood, S. L. 1982b: 493. (ds) Wood, S. L. 1982b: 493. (tx) Wood, S. L. 1969b: 15, 1982b: 493.
- adustus** (Eggers) 1943a: 368 (*Hylocurosoma*). Holotype ♂?; Bolivia (Cochabamba); USNM, Washington. Distribution: South America (Bolivia). References: (tx) Anderson, W. H. & Anderson 1971: 3; Eggers 1943a: 368; Schedl 1952d: 346.
- aequipunctatus** Eggers 1943a: 361. Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris. Distribution: South America (Bolivia). References: (tx) Eggers 1943a: 361.
- alni** Wood 1969b: 20. Holotype ♀; Volcan Irazu, Cartago, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Alnus acuminatus*. References: (hb) Wood, S. L. 1982b: 499. (ds) Wood, S. L. 1982b: 499. (tx) Wood, S. L. 1969b: 20, 1982b: 499.
- amabilis** Wood 1975a: 26. Holotype ♀; Mt. Tzontelnitz, Chiapas, Mexico; CNCI, Ottawa. Distribution: North America (Chiapas in Mexico). Hosts: *Quercus* sp. References: (ds) Wood, S. L. 1982b: 490. (tx) McNamara 1984: 759; Wood, S. L. 1975a: 26, 1982b: 490.
- amoenus** Wood 1967c: 128. Holotype ♀; 35 km N Juchitlan, Jalisco, Mexico; Wood Collection. Distribution: North America (Jalisco, Tamaulipas in Mexico). Hosts: *Ficus* sp. References: (ec) Equihua & Atkinson 1986: 627. (hb) Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 479. (ds) Atkinson et al. 1986: 56; Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 479. (tx) Wood, S. L. 1967c: 128, 1982b: 479.
- anceps** Wood 1981: 126. Holotype ♀; Piedras Blancas, 11 km W Medellin, Antioquia, Colombia; Wood Collection. Distribution: South America (Colombia). Hosts: *Cecropia* sp. leaf petioles. References: (tx) Wood, S. L. 1981: 126.
- argentinensis** (Eggers) 1928c: 57 (*Prionosceles*). Lectotype, sex?; Argentina; USNM, Washington, designated by Anderson & Anderson 1971. Distribution: South America (Argentina). References: (ds) Blackwelder 1947: 786. (tx) Anderson, W. H. & Anderson 1971: 4; Eggers 1928c: 57.
- ater** (Eggers) 1943a: 365 (*Prionosceles*). Holotype, sex?; Bolivia (Cochabamba); USNM, Washington. Distribution: South America (Bolivia). Notes: (1) Originally spelled *atrum*, gender change required the spelling correction. References: (tx) Anderson, W. H. & Anderson 1971: 5; Eggers 1943a: 365–366; Schedl 1952d: 346.
- aterrimus** Wood 1985a: 32. Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris, automatic. Distribution: South America (Bolivia). References: (tx) Wood, S. L. 1985a: 32.
- ater** Eggers 1943a: 371 (*Hylocurosoma*). Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris, preoccupied by Eggers 1943. Notes: (1) This name was originally spelled *atrum* before the gender change. References: (tx) Eggers 1943a: 371; Schedl 1952d: 346.
- atratus** (Blandford) 1897a: 178 (*Prionosceles*). Lectotype ♂; Senahu, Vera Paz, Guatemala; BMNH, London, designated by Wood 1982b: 475. Notes: (1) Wood 1982b: 475 (subspecies recognized; however, additional studies in Nicaragua and El Salvador might indicate gradual clinal intergradation, not subspecies). References: (hb) Atkinson & Equihua 1985b: 232, 1986a: 420; Wood, S. L. 1982b: 475. (ds) Atkinson & Equihua 1985b: 232, 1986a: 420; Blackwelder

1947: 786; Bright 1972b: 1497; Hagedorn 1910d: 76; Kleine 1914b: 370; Wood, S. L. 1982b: 475. (tx) Blandford 1897a: 178; Hagedorn 1910a: 117; Hopkins 1914: 128; Wood, S. L. 1982b: 475.

Distribution: North America (Guatemala/ Honduras/ Chiapas, Oaxaca, Veracruz in Mexico).

Hosts: *Cecropia* sp. leaf petioles.

Notes: (1) Wood 1982b: 475 (subspecies recognized).

References: (tx) Blandford 1897a: 178; Wood, S. L. 1982b: 475.

atratus panamensis (Wood) 1961d: 103 (*Prionosceles*). Holotype ♂; Summit, Canal Zone, Panama; USNM, Washington.

Notes: Wood 1982b: 476 (reduced to subspecific rank).

Distribution: North America (Costa Rica/ Panama).

Hosts: *Cecropia* sp. leaf petioles.

References: (ec) Wood, S. L. 1983b: 768. (hb) Wood, S. L. 1983b: 768. (ds) Kleine 1914b: 370; Wood, S. L. 1982b: 476. (tx) Wood, S. L. 1961d: 103, 1982b: 476.

atrotibialis (Eggers) 1943a: 365 (*Prionosceles*). Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris.

Distribution: South America (Bolivia).

References: (tx) Eggers 1943a: 365; Schedl 1979c: 31.

banosus (Hagedorn) 1909a: 743 (*Hexacolus*). Syn-types 2, sex?; Banos, Ecuador; MNHN, Paris.

Distribution: South America (Ecuador).

References: (ds) Blackwelder 1947: 786; Hagedorn 1910d: 77; Kleine 1914b: 343. (tx) Hagedorn 1909a: 743, 1910a: 114; Schedl 1979c: 33.

bicolor (Eggers) 1931b: 33 (*Hexacolus*). Holotype ♂; Sao Paulo, Brazil; Prague Museum.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 786. (tx) Eggers 1931b: 33, 1940a: 132; Schedl 1954b: 22.

blandfordi (Schedl) 1936i: 104 (*Hexacolus*). Holotype ♂; Costa Rica, Hamburgfarm, Rio Reventazon, Ebene Limon; Schedl Collection in NHMW, Wien.

Distribution: North America (Costa Rica).

Hosts: *Cecropia* sp. leaf petioles.

References: (hb) Wood, S. L. 1982b: 484. (ds) Blackwelder 1947: 786; Wood, S. L. 1982b: 484. (tx) Blackman 1943a: 381; Schedl 1936i: 104, 1937g: 66, 1952d: 346, 355, 1979c: 42.

boliviae (Schedl) 1951m: 80 (*Hexacolus*). Holotype ♂; Bolivien, Cochabamba; Eggers Collection, in NHMW, Wien.

Distribution: South America (Bolivia).

Notes: (3) Schedl 1951m: 80 (*Pityophthorus glaber* Eggers, nomen nudum, synonymy).

References: (tx) Schedl 1951m: 80, 1979c: 42.

bolivianus Eggers 1928a: 86. Lectotype, sex?; Cochabamba, Bolivia; USNM, Washington, designated by Anderson & Anderson 1971: 7.

Distribution: South America (Bolivia).

References: (ds) Blackwelder 1947: 784. (tx) Anderson, W. H. & Anderson 1971: 7; Eggers 1928a: 86, 1934a: 80–81; Schedl 1935m: 51, 1979c: 43.

boliviensis Wood 1988a: 32. Lectotype, sex?; Boliviens (Cochabamba); USNM, Washington, designated by Anderson & Anderson 1971: 7, automatic.

Distribution: South America (Bolivia).

References: (tx) Anderson W. H. & Anderson 1971: 7; Wood, S. L. 1988a: 32.

bolivianus Eggers 1928a: 85 (*Prionosceles*). Lectotype, sex?; Boliviens (Cochabamba); USNM, Washington, designated by Anderson & Anderson 1971: 7, preoccupied by Eggers 1928a: 86.

References: (ds) Blackwelder 1947: 786. (tx) Anderson, W. H. & Anderson 1971: 7; Eggers 1928a: 88, 1934a: 80f; Schedl 1979c: 43.

brasilianus Wood 1988a: 32. Holotype ♂?; Brazil; Schedl Collection in NHMW, Wien, automatic.

Distribution: South America (Brazil).

References: (tx) Wood, S. L. 1988a: 32.

brasiliensis Schedl 1935f: 274 (*Hexacolus*). Holotype ♂?; Brazil; Schedl Collection in NHMW, Wien, preoccupied by Eggers 1928a: 89.

References: (tx) Schedl 1935f: 274, 1979c: 45; Wood, S. L. 1988a: 32.

brasiliensis (Eggers) 1928a: 89 (*Prionosceles*). Holotype, sex?; Blumenau, Brazil; USNM, Washington.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 786. (tx) Eggers 1928a: 89–90; Schedl 1935f: 274.

bruchii (Hagedorn) 1909: 743 (*Hexacolus*). Syn-types (several), sex?; Argentinien; Hamburg Museum, lost.

Distribution: South America (Argentina/ Brazil).

References: (cn) Costa Lima 1956. (hb) Costa Lima 1956. (ds) Blackwelder 1947: 784; Bruch 1914a; Costa Lima 1956; Hagedorn 1910d: 77; Kleine 1914b: 333. (tx) Bruch 1938; Costa Lima 1956; Eggers 1931c: 185; Hagedorn 1909a: 743, 1910a: 114; Schedl 1951h: 284, 1958f: 34.

canaliculus Wood 1977d: 517. Holotype ♀; La Carbonera Experimental Forest, 50 km NW Merida, Merida, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Clusia* sp.

References: (tx) Wood, S. L. 1977d: 517.

canalis Wood 1974a: 13. Holotype ♀; Mt. Tzontehuitz, Chiapas, Mexico; CNCI, Ottawa.

Distribution: North America (Chiapas in Mexico).

References: (ds) Wood, S. L. 1982b: 490. (tx) McNamara 1984: 759; Wood, S. L. 1974a: 13, 1982b: 490.

cecropiavorus Wood 1969b: 17. Holotype ♀; San Ignacio de Acosta, San Jose, Costa Rica; Wood Collection.

Notes: (1) Wood 1982b: 482 (Subspecies are recognized in the upland area and on opposite sides of Costa Rica).

References: (hb) Wood, S. L. 1982b: 482. (ds) Wood, S. L. 1982b: 482. (tx) Wood, S. L. 1969b: 17, 1982b: 482.

cecropiavorus cecropiavorus:

Distribution: North America (central plateau and northern Costa Rica).

Hosts: *Cecropia peltata* leaf petioles.

References: (tx) Wood, S. L. 1969b: 17, 1982b: 483.

cecropiavorus acuminatus Wood 1969b: 17. Holotype ♀; Tapanti, Cartago, Costa Rica; Wood Collection.

Distribution: North America (eastern Costa Rica).

Hosts: *Cecropia peltata* leaf petioles.

References: (tx) Wood, S. L. 1969b: 17–18, 1982b: 483.

cecropiavorus punctifer Wood 1969b: 18. Holotype ♂; Gatun Dam, Canal Zone, Panama; Wood Collection.

Distribution: North America (Pacific slope of Costa Rica and Panama).

Hosts: *Cecropia peltata* leaf petioles.

References: (hb) Wood, S. L. 1982b: 483. (ds) Wood, S. L. 1982b: 483. (tx) Wood, S. L. 1969b: 18, 1982b: 483.

cecropicolens Wood 1969b: 16. Holotype ♀; Peralta, Cartago, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Cecropia* sp. branch terminal.

References: (hb) Wood, S. L. 1982b: 481. (ds) Wood, S. L. 1982b: 481. (tx) Wood, S. L. 1967c: 123, 1969b: 16, 1982b: 481.

cecropii (Schedl) 1937g: 66 (*Hexacolus*). Holotype ♀; La Hondura, Costa Rica; Schedl Collection in NHMW, Wien.

Distribution: North America (Costa Rica).

Hosts: *Cecropia peltata* leaf petioles.

References: (hb) Wood, S. L. 1982b: 484. (ds) Blackwelder 1947: 786; Wood, S. L. 1982b: 484. (tx) Blackman 1943a; Schedl 1937g: 66, 1952d: 346, 1955d: 274, 1979c: 55; Wood, S. L. 1969b: 17, 1982b: 484.

cedrelae Wood 1969b: 19. Holotype ♀; Rincon de Osa, Puntarenas, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Cedrela mexicana*, *Vismia guianensis*.

References: (hb) Wood, S. L. 1982b: 495. (ds) Wood, S. L. 1982b: 495. (tx) Wood, S. L. 1969b: 19, 1982b: 495.

chapuisi Wood 1977b: 210. Syntypes 2 ♂; Colombie; IRSNB, Brussels, automatic.

Distribution: North America (Panama), South America (Colombia/ Venezuela).

Hosts: *Cecropia* spp. leaf petioles.

References: (tx) Wood, S. L. 1977b: 210, 1977d: 517.

laevigatus Chapuis 1869: 49 (*Ctenophorus*). Syn-types ♂; Colombie; IRSNB, Brussels, preoccupied by Ferrari 1867a: 77.

References: (tx) Chapuis 1869: 49, 1873: 257; Schedl 1935f: 273; Wood, S. L. 1977b: 210, 1977d: 517.

levis Blackman 1943a: 382 (*Hexacolus*). Holotype ♀; Paraiso, Canal Zone, Panama; USNM, Washington, preoccupied by *laevis* Eggers 1928 [Code, Article 58(2)]. Synonymy: Wood 1977d: 517.

References: (hb) Wood, S. L. 1982b: 478. (ds) Wood, S. L. 1982b: 478. (tx) Blackman 1943a: 382; Wood, S. L. 1977b: 210, 1977d: 517, 1982b: 478.

clusiacolens Wood 1967c: 121. Holotype ♀; 10 km E Volcan Paricutin, Michoacan, Mexico; Wood Collection.

Distribution: North America (Guatemala/ Honduras/ Chiapas, Michoacan in Mexico).

Hosts: *Clusia* sp.

References: (hb) Wood, S. L. 1982b: 489. (ds) Atkinson & Equihua 1985b: 233; Wood, S. L. 1982b: 489. (tx) Wood, S. L. 1967c: 121, 1982b: 489.

clusiae Wood 1969b: 14. Holotype ♀; Volcan Poas, Heredia, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Clusia* sp.

References: (hb) Wood, S. L. 1982b: 488. (ds) Wood, S. L. 1982b: 488. (tx) Wood, S. L. 1967c: 122, 1969b: 14, 1982b: 488.

clusiavorus Wood 1967c: 122. Holotype ♀; Volcan de Agua, Esquintla, Guatemala; Wood Collection. Distribution: North America (Guatemala/ Veracruz in Mexico).

Hosts: *Clusia* sp.

References: (hb) Wood, S. L. 1982b: 489. (ds) Wood, S. L. 1982b: 489. (tx) Wood, S. L. 1967c: 122, 1982b: 489.

columbianus (Schedl) 1967f: 160 (*Hexacolus*). Holotype ♂; Colombia, Sierra S. Lorenzo; NHMB, Budapest.

Distribution: South America (Colombia).

References: (tx) Schedl 1967f: 160–161.

comitabilis Wood 1978b: 401. Holotype ♀; Merida, Merida, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Clusia* sp.

References: (tx) Wood, S. L. 1978b: 401.

confusus (Eggers) 1943a: 370 (*Hylocurosoma*). Holotype, sex?; Bolivia (Cochabamba); USNM, Washington.

Distribution: South America (Bolivia).

- Notes: (1) Name originally spelled *confusum*.
References: (tx) Anderson, W. H. & Anderson 1971: 10; Eggers 1943a: 370; Schedl 1952d: 346.
- constrictus** Wood 1977d: 518. Holotype ♀; Piedras Blancas, 11 km W Medellín, Antioquia, Colombia; Wood Collection.
Distribution: South America (Colombia).
Hosts: (?) *Baccharis* sp.
References: (tx) Wood, S. L. 1977d: 518.
- contractus** Wood 1977d: 518. Holotype ♀; 13 km SE El Vigía, Mérida, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: Liana.
References: (tx) Wood, S. L. 1977d: 518.
- costabilis** Wood 1974a: 13. Holotype ♀; Lago Catemaco, Veracruz, Mexico; CNCI, Ottawa.
Distribution: North America (Veracruz in Mexico).
References: (ds) Wood, S. L. 1982b: 481. (tx) McNamara 1984: 759; Wood, S. L. 1974a: 13, 1982b: 481.
- crassus** Wood 1971: 16. Holotype ♂; Barro Colorado Island, Canal Zone, Panama; Wood Collection.
Distribution: North America (Panama).
References: (ds) Wood, S. L. 1982b: 487. (tx) Wood, S. L. 1971: 16, 1982b: 487.
- crinalis** Wood 1978b: 402. Holotype ♀; La Carbonera Experimental Forest, 50 km NW Mérida, Mérida, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Clusia* sp.
References: (tx) Wood, S. L. 1978b: 402.
- crinitus** Wood 1978b: 402. Holotype ♀; El Laurel Experimental Farm, 12 km SE Caracas, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: Leguminous liana.
References: (tx) Wood, S. L. 1978b: 402.
- cubensis** (Schedl) 1972g: 56 (*Hexacolus*). Holotype ♂; Cuba, Prov. Pinar del Río, Malas; Schedl Collection in NHMW, Wien.
Distribution: Antilles Islands (Cuba).
Hosts: *Ficus* sp.
Notes: (3) Schedl labeled the male holotype as a female.
References: (ds) Bright 1985c: 172. (tx) Bright 1985c: 172; Schedl 1972g: 56, 1979c: 71.
- culcitatus** (Blandford) 1897a: 179 (*Epomadius*). Lectotype ♀?; Pena Blanca, 3000–4000 ft., Chiriquí, Panama; BMNH, London, designated by Wood 1982b: 494.
Distribution: North America (Panama).
References: (ds) Blackwelder 1947: 786; Hagedorn 1910d: 76; Kleine 1914b: 370; Wood, S. L. 1982b: 494. (tx) Blandford 1897a: 179; Hagedorn 1910a: 118; Hopkins 1914: 121; Lucas 1920: 271; Wood, S. L. 1977c: 384, 1982b: 494. (ms) Lucas 1920: 271.
- cylindricus** Schedl 1978c: 297. Holotype ♀; Peru, Machu-Picchu, 2000 m; Schedl Collection in NHMW, Wien.
Distribution: South America (Peru).
References: (tx) Schedl 1978c: 297–298.
- declivistriatus** Schedl 1967a: 126. Holotype ♂?; Buenaventura, Colombia to Tokyo (Japan), imported; PPST, Tokyo.
Distribution: South America (Colombia).
Notes: *Virola* sp.
References: (tx) Schedl 1967a: 126, 1979c: 76.
- decorus** Wood 1978b: 402. Holotype ♂; 40 km E Canton, Barinas, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Nectandra* sp.
References: (tx) Wood, S. L. 1978b: 402.
- discedens** (Eggers) 1940a: 133 (*Hexacolus*). Holotype ♀; Guadeloupe (Trois Rivières); Eggers Collection, in NHMW, Wien.
Distribution: Antilles Islands (Guadeloupe).
References: (ds) Bright 1985c: 172. (tx) Bright 1985c: 172; Eggers 1940a: 133; Schedl 1979c: 82.
- discriminatus** Wood 1988a: 32. Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris, automatic.
Distribution: South America (Bolivia).
References: (tx) Wood, S. L. 1988a: 32.
- discedens** Eggers 1943a: 360. Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris, preoccupied by Eggers 1940.
References: (tx) Eggers 1943a: 360; Schedl 1979c: 82.
- dissimilis** Schedl 1967d: 5. Holotype ♂; Brasilien, Ibiacaré, 27 degrees 09'–51 degrees 18', 600 m; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1967d: 5–6, 1979c: 82–83.
- dubiosus** (Schedl) 1972g: 55 (*Prionosceles*). Holotype ♂; Brasilien, S. Bocaina, S. J. Berreira, 1650 m; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1972g: 55, 1979c: 84.
- eggersi** (Schedl) 1952d: 346 (*Hexacolus*). Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris, automatic.
Distribution: South America (Bolivia).
References: (tx) Schedl 1952d: 346.
- bicolor** Eggers 1943a: 363. Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris, preoccupied by Eggers 1931.
References: (tx) Eggers 1943a: 363; Schedl 1952d: 346, 1954b: 22.
- elongatissimus** Wood 1988a: 32. Lectotype, sex?; Bolivia (Cochabamba); USNM, Washington, designated by Anderson & Anderson 1971: 12, automatic.
Distribution: South America (Bolivia).

- References: (tx) Wood, S. L. 1988a: 32.
elongatus Eggers 1943a: 369 (*Hylocurosoma*).
 Lectotype, sex?; Bolivia (Cochabamba); USNM, Washington, designated by Anderson & Anderson 1971: 12, preoccupied by Schedl 1935.
 Notes: (1) The name *elongatus* Schedl is treated below as a synonym of *trispinosus* Eggers, but it is an available name.
 References: (ds) Schedl 1970e: 91, 1973a: 366, 1973d: 154. (tx) Anderson, W. H. & Anderson 1971: 12; Eggers 1943a: 369; Schedl 1952d: 346, 1979c: 89.
- erineophilus** Wood 1969b: 20. Holotype ♀; Tapanti, Cartago, Costa Rica; Wood Collection.
 Distribution: North America (Costa Rica).
 Hosts: *Ficus* sp.
 References: (hb) Wood, S. L. 1982b: 499. (ds) Wood, S. L. 1982b: 499. (tx) Wood, S. L. 1969b: 20–21, 1982b: 499.
- exiguus** Wood 1969b: 22. Holotype ♂; San Isidro del General, San Jose, Costa Rica; Wood Collection.
 Distribution: North America (Costa Rica).
 Hosts: *Ficus* sp.
 References: (hb) Wood, S. L. 1982b: 506. (ds) Wood, S. L. 1982b: 506. (tx) Wood, S. L. 1969b: 22–23, 1982b: 506.
- eximius** Wood 1981: 122. Holotype ♀; Peru, Machu-Pichu, 2000 m; Schedl Collection in NHMW, Wien, automatic.
 Distribution: South America (Peru).
 References: (tx) Wood, S. L. 1981: 122.
grandis Schedl 1978c: 298. Holotype ♀; Peru, Machu-Pichu, 2000 m; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1962.
 References: (tx) Schedl 1978c: 298, 1979c: 109.
- facetus** Wood 1967c: 126. Holotype ♀; Palin, Esquintla, Guatemala; Wood Collection.
 Distribution: North America (Guatemala).
 Hosts: *Ficus* sp.
 References: (hb) Wood, S. L. 1982b: 497. (ds) Wood, S. L. 1982b: 497. (tx) Wood, S. L. 1967c: 126, 1982b: 497.
- festus** Wood 1977d: 519. Holotype ♀; Piedras Blancas, 11 km W Medellin, Antioquia, Colombia; Wood Collection.
 Distribution: South America (Colombia).
 Hosts: *Cecropia* sp. leaf petioles.
 References: (tx) Wood, S. L. 1977d: 519.
- ficicolaens** Wood 1981: 126. Holotype ♀; Merida, Merida, Venezuela; Wood Collection.
 Distribution: South America (Venezuela).
 Hosts: *Ficus* sp.
 References: (tx) Wood, S. L. 1981: 126.
- ficivorus** Wood 1967c: 125. Holotype ♀; Paulin, Guatemala; Wood Collection.
 Distribution: North America (Guatemala).
 Hosts: *Ficus* sp.
 References: (hb) Wood, S. L. 1982b: 500. (ds) Wood, S. L. 1982b: 500. (tx) Wood, S. L. 1967c: 125, 1982b: 500.
- frontoglabratus** (Schedl) 1935f: 274 (*Hexacolus*). Holotype ♀; Argentine; San Ignacio; Schedl Collection in NHMW, Wien.
 Distribution: South America (Argentina).
 References: (ds) Blackwelder 1947: 786. (tx) Schedl 1935f: 274, 1979c: 101.
- fulmineus** Wood 1977b: 217. Holotype ♀; La Carbonera Experimental Forest, 50 km NW Merida, Merida, Venezuela; Wood Collection.
 Distribution: South America (Venezuela).
 Hosts: *Clusia* sp.
 References: (tx) Wood, S. L. 1977b: 217.
- genialis** Wood 1975a: 27. Holotype ♀; Laguna Santa Maria, Nayarit, Mexico; Wood Collection.
 Distribution: North America (Jalisco, Nayarit in Mexico).
 Hosts: *Ficus* sp.
 References: (tx) Wood, S. L. 1975a: 27.
- gennaeus** Wood 1988a: 33. Holotype ♀; 30 km N Merida, Merida, Venezuela; Wood Collection, automatic.
 Distribution: South America (Venezuela).
 Hosts: *Podocarpus* sp.
 References: (tx) Wood, S. L. 1988a: 33.
- genialis** Wood 1978b: 403. Holotype ♀; 30 km N Merida, Merida, Venezuela; Wood Collection, preoccupied by Wood 1975.
 References: (hb) Wood, S. L. 1982b: 480. (ds) Wood, S. L. 1982b: 480. (tx) Wood, S. L. 1978b: 403, 1982b: 480.
- glaber** (Eichhoff) 1868a: 400 (*Hexacolus*). Holotype, sex?; Cuba; IRSNB, Brussels.
 Distribution: Antilles Islands (Cuba).
 References: (ds) Blackwelder 1947: 786; Bright 1985c: 172; Gemminger & Harold 1872: 2694; Hagedorn 1903b: 546, 1910d: 77; Kleine 1914b: 378. (tx) Bright 1985c: 172; Eggers 1933b: 2, 17; Eichhoff 1868a: 400, 1878b: 307; Hagedorn 1903b: 546, 1910a: 114; Hopkins 1914: 122; Lucas 1920: 328. (ms) Lucas 1920: 328.
- glaberescens** Wood 1972c: 152. Holotype ♂; Summit, Canal Zone, Panama; USNM, Washington, automatic.
 Distribution: North America (Costa Rica/Panama), South America (Colombia/Venezuela).
 Hosts: *Cecropia* sp. leaf petioles.
 References: (hb) Wood, S. L. 1982b: 474. (ds) Atkinson & Equihua 1985b: 232; Wood, S. L. 1982b: 474. (tx) Wood, S. L. 1972c: 152, 1982b: 474.
- glaber** Wood 1961a: 102 (*Prionosceles*). Holotype ♂; Summit, Canal Zone, Panama; USNM, Washington, preoccupied by Eichhoff 1868.
 References: (tx) Wood, S. L. 1961a: 102, 1972c: 152.
- glaberrimus** Wood 1972c: 152. Syntypes ♂ ♀; Bolivia (Cochabamba); MNHN, Paris, automatic.

- Distribution: South America (Bolivia).
References: **(tx)** Schedl 1979c: 105; Wood, S. L. 1972c: 152.
- glaber* Eggers 1943a: 360. Syntypes 1 ♂, 1 ♀; Bolivia (Cochabamba); MNHN, Paris, preoccupied by Eichhoff 1868.
References: **(tx)** Eggers 1943a: 360; Schedl 1979c: 104–105; Wood, S. L. 1972c: 152.
- glabratus* (Schedl) 1954b: 23 (*Hexacolus*). Syntypes ♂; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection.
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 105 (citation of holotype invalid).
References: **(tx)** de Ruelle 1970: 101; Schedl 1954b: 23, 1979c: 105.
- glabrellus* (Schedl) 1954b: 21 (*Hexacolus*). Syntypes ♀; Brasilien: Parana, Rondon, 500 m; Schedl Collection in NHMW, Wien, and Plaumann Collection.
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 106 (citation of holotype invalid).
References: **(ds)** Schedl 1967d: 2. **(tx)** Schedl 1954b: 21, 1962r: 98, 1979c: 106; Wood, S. L. 1961d: 98.
- gracilis* Schedl 1976a: 61. Holotype ♀; Corcovado, Guanabara; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: **(tx)** Schedl 1976a: 61.
- grandis* (Schedl) 1962r: 100 (*Hexacolus*). Holotype ♂; Bolivien: Cochabamba; Schedl Collection in NHMW, Wien.
Distribution: South America (Bolivia).
References: **(tx)** Schedl 1962r: 100, 1979c: 109.
- guyanaensis* (Schedl) 1937c: 13 (*Erincophilus*). Syntypes ♂ ♀; British Guiana: N. W. District; BMNH, London, and Schedl Collection in NHMW, Wien.
Distribution: Antilles Islands (Guadeloupe), South America (Guyana).
Hosts: *Swietenia* sp.
Notes: (3) Schedl 1962r: 96 (*mohogani* Sampson, nomen nudum, synonymy).
References: **(en)** Gruner 1974. **(ec)** Cornic 1978; Gruner 1974; Laumond & Mauleon 1982. **(hb)** Cornic 1978; Gruner 1974. **(ds)** Blackwelder 1947: 786; Bright 1985c: 172; Schedl 1960a: 78, 1970e: 91. **(tx)** Bright 1985c: 172; Schedl 1937c: 13, 1960g: 5, 1962r: 96, 1979c: 115.
- habilis* Wood 1978b: 403. Holotype ♀; 30 km E Merida, Merida, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Croton* sp.
References: **(tx)** Wood, S. L. 1978b: 403.
- hagedorni* (Schedl) 1962r: 101 (*Prionosceles*). Holotype, sex?; Equateur: Mirador, 3800 m; Schedl Collection in NHMW, Wien.
Distribution: South America (Ecuador).
- References: **(tx)** Schedl 1962r: 101, 1979c: 115.
- hirsutus* Wood 1971: 16. Holotype ♂; Tapanti, Cartago, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: Liana.
References: **(hb)** Wood, S. L. 1982b: 457. **(ds)** Wood, S. L. 1982b: 457. **(tx)** Wood, S. L. 1971: 16, 1982b: 457.
- imitans* (Eggers) 1940a: 136 (*Prionosceles*). Holotype, sex?; Guadeloupe (Trois-Rivieres); Eggers Collection, in NHMW, Wien.
Distribution: Antilles Islands (Guadeloupe).
References: **(ds)** Bright 1985c: 172. **(tx)** Bright 1985c: 172; Eggers 1940a: 136; Schedl 1979c: 121.
- immanis* Wood 1969b: 19. Holotype ♀; Villa Mills near Cerro de la Muerte, Cartago, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Miconia* sp.
References: **(hb)** Wood, S. L. 1982b: 498. **(ds)** Wood, S. L. 1982b: 498. **(tx)** Wood, S. L. 1969b: 19–20, 1982b: 498.
- impressus* Wood 1969b: 22. Holotype ♂; Turrialba, Cartago, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
References: **(hb)** Wood, S. L. 1982b: 501. **(ds)** Wood, S. L. 1982b: 501. **(tx)** Wood, S. L. 1969b: 22, 1982b: 501.
- ingae* (Blackman) 1943c: 383 (*Prionosceles*). Holotype ♀; La Esperanza, Colombia; USNM, Washington.
Distribution: South America (Colombia).
References: **(ds)** Blackwelder 1947: 787. **(tx)** Blackman 1943c: 383.
- ingavorus* Wood 1967c: 126. Holotype ♀; Los Corchos, Nayarit, Mexico; Wood Collection.
Distribution: North America (Nayarit in Mexico).
Hosts: *Inga* sp.
References: **(hb)** Wood, S. L. 1982b: 504. **(ds)** Wood, S. L. 1982b: 504. **(tx)** Wood, S. L. 1967c: 126, 1982b: 504.
- insularis* (Schedl) 1952d: 357 (*Hexacolus*). Holotype ♀; Guadeloupe, Trois Rivieres; Schedl Collection in NHMW, Wien.
Distribution: Antilles Islands (Guadeloupe).
References: **(ds)** Bright 1985c: 172. **(tx)** Bright 1985c: 172; Schedl 1952d: 357, 1979c: 125.
- interpunctatus* (Eggers) 1943a: 366 (*Prionosceles*). Holotype, sex?; Bolivien (Cochabamba); MNHN, Paris.
Distribution: South America (Bolivia).
References: **(tx)** Eggers 1943a: 366; Schedl 1979c: 127.
- irazuensis* Wood 1969b: 15. Holotype ♀; Volcan Irazu, Cartago, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Oreopanax nubigenus*, *O. xalapense*.
References: **(hb)** Wood, S. L. 1982b: 491. **(ds)**

- Wood, S. L. 1982b: 491. (tx) Wood, S. L. 1969b: 15–16, 1982b: 491.
- jucundus Wood** 1977d: 519. Holotype ♀; Rancho Grande, Aragua, Venezuela; Wood Collection. Distribution: South America (Venezuela). Hosts: *Cecropia* sp. leaf petiole. References: (tx) Wood, S. L. 1977d: 519.
- laevicorpus Wood** 1988a: 33. Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris, automatic. Distribution: South America (Bolivia). References: (tx) Wood, S. L. 1988a: 33.
- laevis Eggers** 1943a: 367 (*Hylocurosoma*). Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris, preoccupied by Eggers 1928. Notes: (1) Original spelling was *laeve*; when transferred to *Scolytodes*, due to a change in gender, it became a junior homonym. References: (tx) Eggers 1943a: 367; Schedl 1952d: 346.
- laevigatulus Wood** 1988a: 33. Holotype ♂; Argentina, Misiones, Dept. Concept., Sta. Maria; Schedl Collection in NHMW, Wien, automatic. Distribution: South America (Argentina). References: (tx) Wood, S. L. 1988a: 33.
- laevigatus Schedl** 1962r: 98 (*Hexacolus*). Holotype ♀; Argentina, Misiones, Dept. Cocept., Sta. Maria; Schedl Collection in NHMW, Wien, preoccupied by Ferrari 1867. References: (ds) Gemminger & Harold 1872: 2696; Hagedorn 1910d: 77; Kleine 1914b: 342; Schedl 1972g: 42. (tx) Gemminger & Harold 1872: 2677; Hagedorn 1910a: 113; Hopkins 1914: 119, 129; Schedl 1962r: 98, 1979c: 135; Wood, S. L. 1988a: 33.
- laevigatus Ferrari** 1867a: 77. Syntypes 2 ♂; Colombia; NHMW, Wien. Distribution: South America (Colombia). References: (ds) Blackwelder 1947: 784. (tx) Eggers 1934a: 81; Ferrari 1867a: 77.
- laevis (Eggers)** 1928c: 88 (*Prionosceles*). Holotype, sex?; Ostbolivien; Eggers Collection, in NHMW, Wien. Distribution: South America (Bolivia). References: (hb) Wood, S. L. 1982b: 478. (ds) Blackwelder 1947: 787; Wood, S. L. 1982b: 478. (tx) Eggers 1928c: 88, 1943a: 362; Schedl 1952d: 346, 1979c: 135; Wood, S. L. 1982b: 478.
- lepidus Wood** 1975a: 27. Holotype ♀; 33 km N Juchitlan, Jalisco, Mexico; Wood Collection. Distribution: North America (Jalisco in Mexico). Hosts: *Ficus* sp. References: (hb) Wood, S. L. 1982b: 479. (ds) Wood, S. L. 1982b: 479. (tx) Wood, S. L. 1975a: 27, 1982b: 479.
- libidus Wood** 1978b: 404. Holotype ♀; Rancho Grande, Pittier National Park, Aragua, Venezuela; Wood Collection. Distribution: South America (Venezuela). Hosts: Cucurbitaceae vine. References: (tx) Wood, S. L. 1978b: 404.
- limbatus (Eggers)** 1943a: 370 (*Hylocurosoma*). Holotype, sex?; Bolivia (Cochabamba); USNM, Washington. Distribution: South America (Bolivia). References: (tx) Anderson, W. H. & Anderson 1971: 17; Eggers 1943a: 370–371; Schedl 1952d: 346.
- longicollis (Eggers)** 1951: 152 (*Hexacolus*). Holotype ♂; Guadeloupe; Eggers Collection, in NHMW, Wien. Distribution: Antilles Islands (Guadeloupe). References: (ds) Bright 1985c: 172. (tx) Bright 1985c: 172; Eggers 1951: 152; Schedl 1979c: 140.
- longipennis Eggers** 1943a: 363. Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris. Distribution: South America (Bolivia). References: (tx) Eggers 1943a: 363; Schedl 1979c: 141.
- major (Eggers)** 1928c: 86 (*Prionosceles*). Holotype, sex?; Bolivia; USNM, Washington. Distribution: South America (Bolivia). References: (ds) Blackwelder 1947: 787. (tx) Anderson, W. H. & Anderson 1971: 19; Eggers 1928c: 86–87.
- majus Wood** 1988a: 33. Holotype, sex?; Bolivia (Cochabamba); USNM, Washington, automatic. Distribution: South America (Bolivia). References: (tx) Wood, S. L. 1988a: 33.
- major Eggers** 1943a: 361. Holotype, sex?; Bolivia (Cochabamba); USNM, Washington, preoccupied by Eggers 1928. References: (tx) Anderson, W. H. & Anderson 1971: 19; Eggers 1943a: 361; Wood, S. L. 1988a: 33.
- marginatus Wood** 1969b: 21. Holotype ♀; Dominical Puntarenas, Costa Rica; Wood Collection. Distribution: North America (Costa Rica/ Chiapas in Mexico). References: (hb) Wood, S. L. 1982b: 501. (ds) Wood, S. L. 1982b: 501. (tx) Wood, S. L. 1969b: 21, 1982b: 501.
- maurus (Blandford)** 1897a: 178 (*Prionosceles*). Lectotype ♂; Pantaleon, Guatemala; BMNH, London, designated by Wood 1982b: 474. Distribution: Antilles Islands (Dominica), North America (Costa Rica/ Guatemala/ Honduras/ Chiapas, Oaxaca, Veracruz in Mexico/ Panama), South America (Venezuela). Hosts: *Cecropia* spp. leaf petioles. References: (hb) Atkinson & Equihua 1985b: 232; Wood, S. L. 1982b: 474. (ds) Atkinson & Equihua 1985b: 232, 1986a: 420; Blackwelder 1947: 787; Bright 1972b: 1497, 1985c: 172; Estrada & Atkinson 1988: 205; Hagedorn 1910d: 76; Kleine 1914b: 370; Wood, S. L. 1982b: 474. (tx) Blandford 1897a: 178; Bright 1985c: 172; Hagedorn

- 1910a: 117; Muskus 1984: 73; Wood, S. L. 1975a: 22; 1982b: 474.
- ellipticus* Eggers 1934a: 80 (*Hexacolus*). Holotype ♂; Turrialba, Costa Rica; Strohmeier Collection. Synonymy: Wood 1975a: 22.
References: (ds) Blackwelder 1947: 786. (tx) Eggers 1934a: 80; Wood, S. L. 1975a: 22.
- medialis* Wood 1988a: 33. Holotype ♂; Bolivia (Cochabamba); MNHN, Paris, automatic.
Distribution: South America (Bolivia).
References: (tx) Wood, S. L. 1988a: 33.
- medius* Eggers 1943a: 359. Holotype ♂; Bolivia (Cochabamba); MNHN, Paris, preoccupied by Eggers 1928.
References: (tx) Anderson, W. H. & Anderson 1971: 19; Eggers 1943a: 359–360; Wood, S. L. 1988a: 33.
- medius* (Eggers) 1928c: 89 (*Prionosceles*). Lectotype, sex?; Ostbolivien; USNM, Washington, designated by Anderson & Anderson 1971: 19.
Distribution: South America (Bolivia).
References: (ds) Blackwelder 1947: 787; Schedl 1970f: 581. (tx) Anderson, W. H. & Anderson 1971: 19; Eggers 1928c: 89; Schedl 1979c: 150–151.
- melanocephalus* (Blandford) 1897a: 181 (*Hexacolus*). Lectotype ♀; Cerro Zunil, Guatemala; BMNH, London, designated by Wood 1982b: 482.
Distribution: North America (Guatemala).
References: (ec) Wichmann 1955a: 107. (ds) Blackwelder 1947: 786; Hagedorn 1910d: 77; Kleine 1914b: 370; Wichmann 1955a: 107. (tx) Blandford 1897a: 181; Eggers 1931b: 33, 1940a: 132; Hagedorn 1910a: 114; Schedl 1952d: 359, 1979c: 15; Wood, S. L. 1982b: 482.
- micidus* Wood 1971: 17. Holotype ♀; 7 km N Totolapan, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Guatemala/Oaxaca in Mexico).
Hosts: *Ficus* sp.
References: (hb) Atkinson et al. 1986: 56; Burgos & Saucedo 1983: 81; Wood, S. L. 1982b: 506. (ds) Atkinson et al. 1986: 56; Burgos & Saucedo 1983: 81; Wood, S. L. 1982b: 506. (tx) Wood, S. L. 1971: 17, 1982b: 506.
- minor* (Eggers) 1928c: 89 (*Prionosceles*). Lectotype, sex?; Ostbolivien; USNM, Washington, designated by Anderson & Anderson 1971: 20.
Distribution: South America (Bolivia).
References: (ds) Blackwelder 1947: 787. (tx) Anderson, W. H. & Anderson 1971: 20; Eggers 1928c: 89; Schedl 1979c: 155.
- minutissimus* Schedl 1952d: 355. Holotype ♀; Hamburgfarm on Rio Reventazon, Limon, Costa Rica; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica), South America (Brazil).
References: (ds) Schedl 1967d: 2; Wood, S. L. 1982b: 478. (tx) Schedl 1952d: 355, 1979c: 156–157; Wood, S. L. 1982b: 478.
- minutissimus* Schedl 1963d: 217 (*Hexacolinus*). Holotype ♂?; Brasilien: Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1952. Synonymy: Wood 1984b: 228.
References: (tx) Schedl 1963d: 217, 1979c: 156; Wood, S. L. 1984b: 228.
- minutus* Wood 1981: 122. Holotype ♂?; Brasilien, Nova Teutonia, 300–500 m, 27 degrees 11' Br., 52 degrees 23' L.; Schedl Collection in NHMW, Wien, automatic.
Distribution: South America (Brazil).
References: (tx) Wood, S. L. 1981: 122.
- minutissimus* Schedl 1978c: 297 (*Hexacolus*). Holotype ♂?; Brasilien, Nova Teutonia, 300–500 m, 27 degrees 11' Br., 52 degrees 23' L.; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1952.
References: (tx) Schedl 1978c: 297.
- morulus* (Schedl) 1952d: 356 (*Hexacolus*). Holotype ♂; Brasilien, Santa Catarina; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1952d: 356, 1979c: 160.
- multistriatus* (Wood) 1961d: 97 (*Hexacolus*). Holotype ♀; 8 km W Villa Juarez, Puebla, Mexico; Wood Collection.
Distribution: North America (Puebla in Mexico).
References: (hb) Wood, S. L. 1982b: 503. (ds) Atkinson & Equihua 1986a: 420; Wood, S. L. 1982b: 503. (tx) Wood, S. L. 1961d: 97, 1967c: 128, 1982b: 503.
- naevius* Wood 1981: 127. Holotype ♀; 40 km SE Socopo, Barinas, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Clusia* sp.
References: (tx) Wood, S. L. 1981: 127.
- nanellus* Wood 1967c: 124. Holotype ♀; Barro Colorado Island, Canal Zone, Panama; Wood Collection.
Distribution: North America (Panama).
References: (hb) Wood, S. L. 1982b: 508. (ds) Wood, S. L. 1982b: 508. (tx) Wood, S. L. 1967c: 124, 1982b: 508.
- nardus* (Schedl) 1976a: 62 (*Hexacolus*). Holotype ♂?; Brazil [probably Cayenne]; Schedl Collection in NHMW, Wien.
Distribution: South America (Cayenne?).
References: (tx) Schedl 1976a: 62.
- nitellus* (Schedl) 1954b: 22 (*Hexacolus*). Syntypes ♀; Brasilien: Parana, Rondon, 500 m; Schedl Collection in NHMW, Wien, and Plaumann Collection.
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 168 (citation of holotype invalid).

References: (tx) Schedl 1954b: 22, 1979c: 168.

nitens (Schedl) 1954b: 23 (*Hexacolus*). Syntypes ♀; Brasilien: Parana, Rondon, 500 m; Schedl Collection in NHMW, Wien, and Plaimann Collection. Distribution: South America (Brazil).

Notes: (1) Schedl 1979c: 168 (citation of holotype invalid).

References: (tx) Schedl 1954b: 23, 1979c: 162.

nitidissimus (Eggers) 1940a: 135 (*Hexacolus*). Holotype ♀; Guadeloupe (Trois Rivières); Eggers Collection, in NHMW, Wien.

Distribution: Antilles Islands (Guadeloupe).

References: (ds) Bright 1985c: 172. (tx) Bright 1985c: 172; Eggers 1940a: 135; Schedl 1979c: 169.

nitidus (Eggers) 1928c: 88 (*Prionosceles*). Holotype sex?; Ostbolivien; Eggers Collection, in NHMW, Wien.

Distribution: South America (Bolivia).

References: (ds) Blackvelder 1947: 787; Schedl 1973d: 154. (tx) Eggers 1928c: 88; Schedl 1979c: 170.

notatus (Eggers) 1940a: 133 (*Hexacolus*). Holotype, sex?; Guadeloupe (Trois Rivières); Eggers Collection, not mentioned by Anderson & Anderson 1971 or Schedl 1979c, a female Eggers cotype in NHMW, Wien.

Distribution: Antilles Islands (Cuba/ Dominica/ Guadeloupe/ Puerto Rico), North America (Mexico?).

References: (ds) Bright 1981c: 156, 1985c: 172; Schedl 1976a: 50. (tx) Bright 1985c: 172; Eggers 1940a: 133; Schedl 1951m: 80, 1954b: 23, 1979c: 171.

pseudobicolor Eggers 1940a: 132 (*Hexacolus*). Holotype ♂; Guadeloupe (Trois Rivières); USNM, Washington. Synonymy: Wood 1985: 269.

References: (ds) Bright 1981c: 156, 1985c: 172; Schedl 1972g: 39, 1976a: 50. (tx) Anderson, W. H. & Anderson 1971: 26; Bright 1985c: 172; Eggers 1940a: 132–133; Schedl 1952d: 357, 1954b: 23, 1979c: 200; Wood, S. L. 1985: 269.

subparallelus Eggers 1940a: 134 (*Hexacolus*). Holotype ♂; Guadeloupe (Trois Rivières); Flentiaux Collection. Synonymy: Wood 1985: 269.

References: (ds) Bright 1985c: 172; Schedl 1976a: 50. (tx) Bright 1985c: 172; Eggers 1940a: 134; Schedl 1979c: 243; Wood, S. L. 1985: 269.

pelicerinus Schedl 1952d: 358 (*Hexacolus*). Holotype, sex?; vermutlich Mexico; Schedl Collection in NHMW, Wien. Synonymy: Wood 1985: 269.

Notes: (3) It is doubtful that the holotype came from Mexico; a Caribbean island is a more likely site.

References: (ds) Wood, S. L. 1982b: 503. (tx) Schedl 1952d: 357–358, 1979c: 187; Wood, S. L. 1982b: 503, 1985: 269.

obesus Wood 1975a: 26. Holotype ♀; Barro Colorado Island, Canal Zone, Panama; Wood Collection.

Distribution: North America (Panama).

References: (ds) Wood, S. L. 1982b: 498. (tx) Wood, S. L. 1975a: 26, 1982b: 498.

oblongus (Eggers) 1940a: 134 (*Hexacolus*). Holotype ♂; Guadeloupe (Env. de Trois Rivières); MNHN, Paris.

Distribution: Antilles Islands (Guadeloupe).

References: (ds) Bright 1985c: 172. (tx) Bright 1985c: 172; Eggers 1940a: 134; Schedl 1979c: 174.

obscurus (Wood) 1961d: 100 (*Hexacolus*). Holotype ♀; 5 km SW Martinez de la Torre, Veracruz, Mexico; Wood Collection.

Distribution: North America (Veracruz in Mexico).

References: (hb) Wood, S. L. 1982b: 508. (ds) Wood, S. L. 1982b: 508. (tx) Wood, S. L. 1961d: 100, 1982b: 508.

ochromae Wood 1969b: 19. Holotype ♀; Playon, San Jose, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Ochroma velutina*.

References: (hb) Wood, S. L. 1982b: 493. (ds) Wood, S. L. 1982b: 493. (tx) Wood, S. L. 1969b: 19, 1982b: 493.

ommateus Wood 1971: 15. Holotype ♀; 8 km S Colonia (near Buenaventura), Valle de Cauca, Colombia; Wood Collection.

Distribution: South America (Colombia).

Hosts: *Clusia* sp.

References: (tx) McNamara 1977: 199; Wood, S. L. 1971: 15.

opacicolis (Eggers) 1928c: 90 (*Prionosceles*). Holotype, sex?; Ostbolivien; Eggers Collection, in NHMW, Wien.

Distribution: South America (Bolivia).

References: (ds) Blackvelder 1947: 787. (tx) Eggers 1928c: 90; Schedl 1979c: 179.

opacus Wood 1977d: 520. Holotype ♀; Merida, Merida, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

References: (tx) Wood, S. L. 1977d: 520.

opimus Wood 1977d: 520. Holotype ♀; La Carbonera Experimental Forest, 50 km NW Merida, Merida, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Liana.

References: (tx) Wood, S. L. 1977d: 520.

ovalis (Eggers) 1940a: 132 (*Hexacolus*). Holotype, sex?; Guadeloupe; Flentiaux Collection.

Distribution: Antilles Islands (Guadeloupe).

References: (ds) Bright 1985c: 172. (tx) Bright 1985c: 172; Eggers 1940a: 132.

pamuceus Wood 1971: 16. Holotype ♀; La Ceiba, Atlantida, Honduras; Wood Collection.

Distribution: North America (Honduras).

- References: (**ds**) Wood, S. L. 1982b: 503. (**tx**) Wood, S. L. 1971: 16–17, 1982b: 503.
- parallelus** (Schedl) 1962r: 99 (*Hexacolus*). Holotype ♂ ♀; Venezuela; Schedl Collection in NHMW, Wien.
- Distribution: South America (Venezuela).
- Notes: (3) Schedl labeled the holotype as a female; it appears to be a male.
- References: (**tx**) Schedl 1962r: 99, 1979c: 185.
- parvulus** Wood 1969b: 14. Holotype ♀; Pandora, Limon, Costa Rica; Wood Collection.
- Distribution: North America (Costa Rica/ Chiapas, Veracruz in Mexico).
- Hosts: *Cecropia* sp. leaf petiole.
- References: (**hb**) Atkinson & Equihua 1985b: 233; Wood, S. L. 1982b: 492. (**ds**) Atkinson & Equihua 1985b: 233, 1986a: 420; Wood, S. L. 1982b: 492. (**tx**) Wood, S. L. 1969b: 14–15; 1982b: 492.
- parvus** (Eggers) 1943a: 371 (*Hylocurosoma*). Holotype, sex?; Bolivia (Cochabamba); USNM, Washington.
- Distribution: South America (Bolivia).
- References: (**ds**) Schedl 1979c: 186. (**tx**) Anderson, W. H. & Anderson 1971: 24; Eggers 1943a: 371; Schedl 1952d: 346, 1979c: 186.
- pelicipennis** (Schedl) 1952d: 356 (*Hexacolus*). Holotype ♂; Costa Rica, Jimenez, Halbinsel Osa; Schedl Collection in NHMW, Wien.
- Distribution: North America (Costa Rica).
- References: (**ds**) Wood, S. L. 1982b: 502. (**tx**) Schedl 1952d: 356, 1979c: 187; Wood, S. L. 1982b: 502.
- perditus** Wood 1967c: 123. Holotype ♀; Fort Clayton, Canal Zone, Panama; Wood Collection.
- Distribution: North America (Panama).
- Hosts: *Cecropia* sp. branch terminal.
- References: (**hb**) Wood, S. L. 1982b: 480. (**ds**) Wood, S. L. 1982b: 480. (**tx**) Wood, S. L. 1967c: 123, 1982b: 480.
- permagnus** (Eggers) 1943c: 364 (*Prionosceles*). Holotype, sex?; Bolivia (Cochabamba); Eggers Collection, in NHMW, Wien.
- Distribution: South America (Bolivia).
- References: (**tx**) Eggers 1943c: 364; Schedl 1979c: 189.
- perplexus** Schedl 1972g: 56. Holotype ♀; Brasilien, Corcovado, Guanabara; Schedl Collection in NHMW, Wien.
- Distribution: South America (Brazil).
- References: (**tx**) Schedl 1972g: 56, 1979c: 190.
- perpusillus** Wood 1978b: 404. Holotype ♀; Rancho Grande, Pittier National Park, Aragua, Venezuela; Wood Collection.
- Distribution: South America (Venezuela).
- References: (**tx**) Wood, S. L. 1978b: 404.
- phoebeae** Wood 1969b: 16. Holotype ♀; Tapanti, Cartago, Costa Rica; Wood Collection.
- Distribution: North America (Costa Rica).
- Hosts: *Phoebea mexicana*.
- References: (**hb**) Bright 1964b: 16; Wood, S. L. 1982b: 477. (**ds**) Wood, S. L. 1982b: 477. (**tx**) Wood, S. L. 1969b: 16, 1982b: 477.
- piceus** (Blandford) 1897a: 183 (*Hexacolus*). Lectotype ♂; Volcan de Chiriqui, Chiriqui, Panama; BMNH, London, designated by Wood 1982b: 497.
- Distribution: North America (Costa Rica/ Panama).
- Hosts: *Cecropia peltata*, *Phoebea mexicana*.
- References: (**hb**) Wood, S. L. 1982b: 497. (**ds**) Blackwelder 1947: 786; Hagedorn 1910d: 77; Kleine 1914b: 370; Wood, S. L. 1982b: 497. (**tx**) Blandford 1897a: 183; Hagedorn 1910a: 114; Schedl 1936i: 104, 1937g: 66, 1954b: 21; Wood, S. L. 1982b: 497.
- pilifer** Wood 1982a: 230. Holotype ♀; Uxpanapa, Veracruz, Mexico; Wood Collection.
- Distribution: North America (Veracruz in Mexico).
- References: (**ds**) Atkinson & Equihua 1986a: 420. (**tx**) Wood, S. L. 1982a: 230.
- pilifrons** (Schedl) 1962r: 100 (*Hexacolus*). Holotype ♂; Venezuela, Maracay, Rancho Grande; Frey Museum, Tutzing (now in NHMBS, Basel).
- Distribution: South America (Venezuela).
- References: (**tx**) Schedl 1962r: 100, 1979c: 194.
- plumeriae** Wood 1969b: 17. Holotype ♀; Playa del Coco, Guanacaste, Costa Rica; Wood Collection.
- Figures: Atkinson et al. 1986: 63.
- Distribution: North America (Costa Rica/ Guatemala).
- Hosts: *Plumeria rubra*.
- References: (**cc**) Equihua & Atkinson 1986: 627. (**hb**) Atkinson & Equihua 1985b: 232; Atkinson et al. 1986: 56; Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 476. (**ds**) Atkinson & Equihua 1985b: 232; Atkinson et al. 1986: 56; Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 476. (**tx**) Atkinson et al. 1986: 63; Wood, S. L. 1969b: 17, 1982b: 476.
- plumericolens** Wood 1983a: 658. Holotype ♀; Estacion de Biologia, Chamela, Jalisco, Mexico; Wood Collection.
- Distribution: North America (Jalisco in Mexico).
- Hosts: *Plumeria rubra*.
- References: (**cc**) Equihua & Atkinson 1986: 627. (**hb**) Equihua & Atkinson 1986: 627. (**ds**) Equihua & Atkinson 1986: 627. (**tx**) Wood, S. L. 1983a: 658.
- praeceps** Wood 1977d: 521. Holotype ♀; Piedras Blancas, 10 km E Medellin, Antioquia, Colombia; Wood Collection.
- Distribution: South America (Colombia).
- Hosts: *Clusia* sp.
- References: (**tx**) Wood, S. L. 1977d: 521.

- proximus** Wood 1967c: 127. Holotype ♀; El Hato del Volcan, Chiriqui, Panama; Wood Collection. Distribution: North America (Panama). Hosts: *Clusia* sp. References: (hb) Wood, S. L. 1982b: 505. (ds) Wood, S. L. 1982b: 505. (tx) Wood, S. L. 1967c: 127, 1982b: 505.
- pseudoacuminatus** (Schedl) 1935m: 51 (*Hexacolus*). Syntypes, sex?; Saude bei Sao Paulo, Brasilien; Strohmeier Collection, Eberswald, and Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (ds) Blackwelder 1947: 784. (tx) Schedl 1935f: 274, 1935m: 51, 1952d: 346, 1962r: 100, 1979c: 200.
- pseudopiceus** Wood 1969b: 18. Holotype ♀; San Isidro del General, San Jose, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Ficus* sp. References: (hb) Wood, S. L. 1982b: 485. (ds) Wood, S. L. 1982b: 485. (tx) Wood, S. L. 1969b: 18–19, 1982b: 485.
- pubescens** Wood 1969b: 21. Holotype ♀; San Ignacio de Acosta, San Jose, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). References: (hb) Wood, S. L. 1982b: 504. (ds) Wood, S. L. 1982b: 504. (tx) Wood, S. L. 1967b: 21, 1969b: 21–22, 1982b: 504.
- puer** (Schedl) 1952d: 359 (*Hexacolus*). Holotype ♂?; Paraguay; Schedl Collection in NHMW, Wien. Distribution: South America (Paraguay). References: (tx) Schedl 1952d: 359, 1979c: 203.
- pumilus** Wood 1969b: 23. Holotype ♀; Volcan Poas, Heredia, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Drimys granadensis*, *Miconia globuliflora*, *Sapium thelocarpum*. References: (hb) Wood, S. L. 1982b: 507. (ds) Wood, S. L. 1982b: 507. (tx) Wood, S. L. 1967c: 124, 1969b: 23, 1982b: 507.
- punctatus** (Eggers) 1943a: 368 (*Hylocurosoma*). Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris. Distribution: South America (Bolivia). References: (tx) Eggers 1934a: 79, 1943a: 368; Schedl 1952d: 346, 1979c: 204.
- punctiferus** Wood 1976a: 348. Holotype ♂; Volcan Irazu, Cartago, Costa Rica; Wood Collection, automatic. Distribution: North America (Costa Rica). Hosts: *Oreopanax nubigenus*. References: (hb) Wood, S. L. 1982b: 486. (ds) Wood, S. L. 1982b: 486. (tx) Wood, S. L. 1976a: 348, 1982b: 486.
- punctifer** Wood 1971: 15. Holotype ♂; Volcan Irazu, Cartago, Costa Rica; Wood Collection, preoccupied by Wood 1969. References: (tx) Wood, S. L. 1971: 15–16, 1976a: 348.
- pusillimus** Wood 1981: 127. Holotype ♀; 27 km NE Montoya, Santander, Colombia; Wood Collection. Distribution: South America (Colombia). References: (tx) Wood, S. L. 1981: 127.
- pusillus** (Eggers) 1943a: 367 (*Hylocurosoma*). Holotype ♂?; Bolivia (Cochabamba); USNM, Washington. Distribution: South America (Bolivia). References: (tx) Anderson, W. H. & Anderson 1971: 27; Eggers 1943a: 367; Schedl 1952d: 346.
- radiatus** Wood 1977b: 218. Holotype ♀; La Georgiana, 79 km SE San Jose, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Quercus* sp. References: (ds) Wood, S. L. 1982b: 489. (tx) Wood, S. L. 1977b: 218, 1982b: 489.
- reticulatus** (Wood) 1961d: 98 (*Hexacolus*). Holotype ♀; 19 km SE Matamoros, Puebla, Mexico; SMUK, Lawrence. Distribution: North America (Michoacan, Morelos, Puebla in Mexico). Hosts: *Ficus* spp. References: (hb) Atkinson & Equihua 1985b: 233; Burgos & Saucedo 1983: 80; Wood, S. L. 1982b: 500. (ds) Atkinson & Equihua 1985b: 233; Atkinson et al. 1986: 56; Burgos & Saucedo 1983: 80; Wood, S. L. 1982b: 500. (tx) Wood, S. L. 1961d: 98, 1982b: 500.
- retifer** Wood 1983a: 658. Holotype ♀; Texeal, Mpio. Tepoztlan, Morelos, Mexico; Wood Collection. Distribution: North America (Morelos in Mexico). Hosts: *Ceiba* sp. References: (ds) Atkinson et al. 1986: 56. (tx) Wood, S. L. 1983a: 658.
- rugicollis** (Schedl) 1940c: 205 (*Hexacolus*). Lectotype ♀; Hamburgfarm on Rio Reventazon, Limon, Costa Rica; Schedl Collection in NHMW, Wien, designated by Wood 1974d: 287. Distribution: North America (Costa Rica). Hosts: *Ficus* sp. Notes: (1) Schedl 1979c: 216 (citation of holotype invalid). References: (hb) Wood, S. L. 1982b: 502. (ds) Wood, S. L. 1982b: 502. (tx) Schedl 1940c: 205, 1979c: 215–216; Wood, S. L. 1974d: 287, 1982b: 502.
- plicatus** Wood 1969b: 21. Holotype ♀; 25 km SE Gnapiles, Limon, Costa Rica; Wood Collection. Synonymy: Wood 1974d: 287. References: (tx) Wood, S. L. 1969b: 21, 1974d: 287.

- rugulosus** Eggers 1943a: 362. Holotype, sex?; Bolivia (Cochabamba); USNM, Washington.
Distribution: South America (Bolivia).
References: (tx) Anderson, W. H. & Anderson 1971: 28; Eggers 1943a: 362–363.
- schwarzii** (Hopkins) 1902a: 36 (*Erincophilus*). Holotype ♂; Coconut Grove, Dade Co., Florida [USA]; USNM, Washington.
Distribution: Antilles Islands (Andros in Bahamas Islands), North America (Jalisco, Veracruz in Mexico/ S Florida in USA).
Hosts: *Ficus* spp.
References: (cn) Doane et al. 1936. (lb) Atkinson & Equihua 1985b: 233; Chamberlin 1939: 239; Doane et al. 1936; Wood, S. L. 1982b: 496. (ds) Atkinson & Equihua 1985b: 233, 1986a: 420; Atkinson et al. 1991: 157; Blatchley & Leng 1916: 585; Chamberlin 1939: 239; Hagedorn 1910d: 82; Hamilton 1895b: 318; Kleine 1913b: 149, 1914b: 384, 1934a: 168; Swaine 1909: 108; Wood, S. L. 1957c: 396, 1982b: 496. (tx) Blatchley & Leng 1916: 585; Chamberlin 1939: 239; Hagedorn 1910a: 135; Hopkins 1902a: 36, 1903a, 1914: 121; Leng 1920: 337; Lucas 1920: 273; Swaine 1909: 108; Wood, S. L. 1957c: 396, 1961d: 97, 1967c: 125, 1982b: 496. (ms) Lucas 1920: 273.
- semipunctatus** Wood 1978b: 405. Holotype ♀; Merida, Merida, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
References: (tx) Wood, S. L. 1978b: 405.
- serenus** Wood 1977d: 521. Holotype ♀; La Mucuy, 20 km W Merida, Merida, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: Martino (? *Meriana* sp.).
References: (tx) Wood, S. L. 1977d: 521.
- setosus** (Blandford) 1897e: 181 (*Hexacolus*). Holotype ♀?; Cerro Zunil, Guatemala; BMNH, London.
Distribution: North America (Guatemala).
References: (ds) Blackwelder 1947: 786; Hagedorn 1910d: 77; Kleine 1914b: 370; Wood, S. L. 1982b: 486. (tx) Blandford 1897e: 181; Eggers 1933b: 18; Hagedorn 1910a: 114; Wood, S. L. 1982b: 486.
- similis** (Eggers) 1928c: 87 (*Prionosceles*). Lectotype, sex?; Argentinien; USNM, Washington, designated by Anderson & Anderson 1971: 30.
Distribution: South America (Argentina/ Bolivia).
References: (ds) Blackwelder 1947: 787. (tx) Anderson, W. H. & Anderson 1971: 30; Eggers 1928c: 87; Schedl 1979c: 230.
- spadix** (Blackman) 1943c: 384 (*Prionosceles*). Holotype ♂; intercepted at New York in log from Guatemala; USNM, Washington.
Distribution: North America (Guatemala).
Hosts: *Swietenia* sp. (hybrid).
References: (ds) Blackwelder 1947: 787; Wood, S. L. 1982b: 494. (tx) Blackman 1943c: 384; Wood, S. L. 1982b: 494.
- striatulus** Wood 1979b: 136. Holotype, sex?; Guadeloupe (Trois Rivières); MNHN, Paris, automatic.
Distribution: Antilles Islands (Guadeloupe).
References: (ds) Bright 1985c: 172. (tx) Bright 1985c: 172; Wood, S. L. 1979b: 136.
- striatus** Eggers 1940a: 139 (*Hylocurosoma*). Holotype, sex?; Guadeloupe (Trois Rivières); MNHN, Paris, preoccupied by Eggers 1934.
References: (tx) Anderson, W. H. & Anderson 1971: 32; Eggers 1940a: 139; Schedl 1952d: 346, 1979c: 235; Wood, S. L. 1979b: 136.
- striatus** (Eggers) 1934a: 79 (*Hexacolus*). Holotype ♂; Turrialba, Costa Rica; USNM, Washington.
Distribution: North America (Costa Rica).
References: (ds) Blackwelder 1947: 786; Wood, S. L. 1982b: 485. (tx) Anderson, W. H. & Anderson 1971: 31; Eggers 1934a: 78–80; Schedl 1935f: 274, 1952d: 346, 358; Wood, S. L. 1979b: 136, 1982b: 485.
- subcribrosus** (Eggers) 1933b: 17 (*Hexacolus*). Holotype, sex?; Venezuela (Colonia Tovar); MNHN, Paris.
Distribution: South America (Venezuela).
References: (ds) Blackwelder 1947: 786. (tx) Eggers 1933b: 17.
- suturalis** Wood 1977d: 521. Holotype ♂; El Laurel Experimental Farm, 12 km SW Caracas, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Cecropia* sp. leaf petiole.
References: (tx) Wood, S. L. 1977d: 521.
- swieteniae** (Blackman) 1943c: 381 (*Hexacolus*). Holotype ♀; intercepted at New York in logs from Costa Rica; USNM, Washington.
Distribution: North America (Costa Rica).
Hosts: *Swietenia* sp., *Cedrela* sp.
References: (ds) Blackwelder 1947: 786; Wood, S. L. 1982b: 494. (tx) Blackman 1943c: 381–382; Wood, S. L. 1969b: 19, 1982b: 494.
- tardus** Wood 1981: 127. Holotype ♀; Piedras Blancas, 10 km E Medellín, Antioquia, Colombia; Wood Collection.
Distribution: South America (Colombia).
Hosts: *Clusia* sp.
References: (tx) Wood, S. L. 1981: 127.
- tenuis** (Wood) 1961d: 99 (*Hexacolus*). Holotype ♀; 19 km SE Matamoros, Puebla, Mexico; SMUK, Lawrence.
Distribution: North America (Guatemala/ Honduras/ Jalisco, Morelos, Puebla in Mexico).
Hosts: *Ficus* spp.
References: (cc) Equihua & Atkinson 1986: 627. (lb) Atkinson et al. 1986: 56; Burgos & Saucedo 1983: 80; Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 505. (ds) Atkinson & Equihua 1985b:

- 233; Atkinson et al. 1986: 56; Burgos & Saucedo 1983: 80; Equihua & Atkinson 1986: 627; Wood, S. L. 1982b: 505. **(tx)** Wood, S. L. 1961d: 99, 1967c: 127, 1982b: 505.
- tolimanus (Schedl)** 1962r: 102 (*Prionosceles*). Holotype, sex?; Tolima; Schedl Collection in NHMW, Wien.
Distribution: South America (Colombia).
References: **(tx)** Schedl 1962r: 102, 1979c: 253.
- trispinosus Eggers** 1934a: 80. Holotype ♀; Amatan; USNM, Washington.
Distribution: South America (Brazil).
References: **(ds)** Blackwelder 1947: 784; Ferrer 1942; Wood, S. L. 1982b: 509. **(tx)** Anderson, W. H. & Anderson 1971: 34; Eggers 1934a: 80–81; Schedl 1935m: 51, 1940a: 336; Wood, S. L. 1982b: 509.
- elongatus** Schedl 1935f: 273. Holotype ♀?; Brazil; Schedl Collection in NHMW, Wien. Synonymy: Wood 1979b: 136.
References: **(ds)** Blackwelder 1947: 784. **(tx)** Schedl 1935f: 273; 1967a: 126, 1979c: 90; Wood, S. L. 1979b: 136.
- unipunctatus (Blandford)** 1897a: 182 (*Hexacolus*). Lectotype ♀; Cubilguitz, Alta Verapaz, Guatemala; BMNH, London, designated by Wood 1982b: 483.
Distribution: North America (Guatemala).
References: **(ds)** Blackwelder 1947: 786; Hagedorn 1910d: 77; Kleine 1914b: 370; Nunberg 1964a: 234; Wood, S. L. 1982b: 483. **(tx)** Blandford 1897a: 182; Eggers 1934a: 79; Hagedorn 1910a: 114; Nunberg 1964: 234; Schedl 1962r: 100, 1979c: 260; Wood, S. L. 1982b: 483.
- varius Wood** 1977d: 522. Holotype ♀; La Mucuy, 20 km W Merida, Merida, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
References: **(tx)** Wood, S. L. 1977d: 522.
- venustulus Wood** 1967c: 124. Holotype ♂; Cerro Punta, Chiriqui, Panama; Wood Collection.
Distribution: North America (Panama).
Hosts: *Oreopanax* cf. *xalapense*.
References: **(hb)** Wood, S. L. 1982b: 487. **(ds)** Wood, S. L. 1982b: 487. **(tx)** Wood, S. L. 1967c: 124–125, 1982b: 487.
- venustus Wood** 1969b: 18. Holotype ♀; Rodeo, Esquintla, Guatemala; Wood Collection.
Distribution: North America (Costa Rica/ Guatemala).
Hosts: *Ficus* sp., *Plumeria rubra*.
References: **(hb)** Wood, S. L. 1982b: 484. **(ds)** Wood, S. L. 1982b: 484. **(tx)** Wood, S. L. 1967c: 124, 1969b: 18, 1982b: 484.
- vesculus Wood** 1981: 128. Holotype ♂; Piedras Blancas, 10 km E Medellin, Antioquia, Colombia; Wood Collection.
Distribution: South America (Colombia).
Hosts: *Croton guianensis*.
References: **(tx)** Wood, S. L. 1981: 128.
- vestitus (Eggers)** 1932a: 233 (*Problechilus*). Holotype, sex?; Bolivien (Cochabamba); USNM, Washington.
Distribution: South America (Bolivia).
References: **(ds)** Blackwelder 1947: 786. **(tx)** Anderson, W. H. & Anderson 1971: 35; Eggers 1932a: 233; Schedl 1979c: 266.
- vicinus (Eggers)** 1928c: 87 (*Prionosceles*). Holotype, sex?; Brasil (Petropolis, Staat Rio de Janeiro); SMTD, Dresden.
Distribution: South America (Brazil).
References: **(ds)** Blackwelder 1947: 787. **(tx)** Eggers 1928c: 87.
- volcanus Wood** 1969b: 14. Holotype ♀; Volcan Poas, Heredia, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: Liana.
References: **(hb)** Wood, S. L. 1982b: 491. **(ds)** Wood, S. L. 1982b: 491. **(tx)** Wood, S. L. 1969b: 14, 1982b: 491.

Tribe Scolytoplatypodini Blandford

Scolytoplatypini

References: Blandford 1893d: 425; Hagedorn 1908: 382.

Scolytoplatypodidae

References: Brues & Melander 1932: 446.

Scolytoplatypodinae

References: Hopkins 1915c: 225; Lucas 1920: 57; Reitter 1913a: 13.

Scolytoplatypodini

References: Handlirsch 1925: 692; Wood, S. L. 1978a: 113, 1982b: 63, 1986a: 61.

Scolytoplatypi

References: Lucas 1920: 57.

Scolytoplatypidae

References: Blackman 1943d: 121; Hagedorn 1908: 382.

Taeniocerini

References: Blandford 1893d: 428.

Spongocerinae

References: Hagedorn 1909: 162, 1910a: 24, 159, 1910d: 117.

Genus *Scolytoplatypus* Schaufuss

SCOLYTOPLATYPUS SCHAUFUSS 1890: 31. Type-species: *Scolytoplatypus permirus* Schaufuss, monobasic.

Spongocerus Blandford 1893d: 431. Type-species: *Scolytoplatypus tycon* Blandford, subsequent designation by Hopkins 1914: 129. Synonymy: Wood 1983a: 649.

References: (tx) Blandford 1893d: 431; Hagedorn 1904d: 124, 1905b: 11, 1910a: 159, 1910d: 117, 1913: 257; Hopkins 1914: 130, 134; Schedl 1962k: 578; Wood, S. L. 1983a: 649.

Taeniocerus Blandford 1893d: 431, 437. Type-species: *Scolytoplatypus mikado* Blandford, subsequent designation by Hopkins 1914: 130, preoccupied by Kaup 1871. Synonymy: Wood 1983a: 649.

References: (tx) Blandford 1893d: 437; Hagedorn 1904c: 412, 1904d: 126, 1905: 63–64, 1910a: 161, 1910d: 117, 1913b: 257; Hopkins 1914: 130, 134; Sampson 1921: 36; Schaufuss 1905: 11; Schedl 1962k: 578; Wood, S. L. 1983a: 649.

Strophionocerus Sampson 1921: 36. Type-species: *Scolytoplatypus mikado* Blandford, automatic. Synonymy: Wood 1983a: 649.

References: (tx) Sampson 1921: 36; Wood, S. L. 1983a: 649.

Keys: Browne 1971b: 113, Schedl 1975b: 219, Nobuchi 1980b: 46.

References: (ay) Berger & Kholodkovskii 1916: 1–7. (cn) Hargreaves 1925: 21–25. (hb) Beeson 1941: 364–365, 372, 383; Browne 1936: 1, 1961c: 189–190; Gardner 1934: 4–5; Roepke 1911: 10–

11; Schedl 1958d: 195; Wood, S. L. 1986a: 61. (ds) Browne 1958: 164–182; Hagedorn 1910d: 117; Schedl 1934f: 1647, 1966b: 81; Wood, S. L. 1986a: 61. (tx) Blackman 1943d: 121; Blandford 1893d: 425–442, 1894d: 126, 141, 1895a: 84; Browne 1971b: 111–129; Choo 1953: 35–37; Hagedorn 1904c: 404–413, 1904d: 124, 126, 1905b: 63, 1907b: 112, 1909b: 163, 1910a: 159–161, 1913: 253, 257; Hopkins 1914: 129–130, 134, 1915c: 198–199, 227; Kurenzov 1941: 13, 70, 73; Menzel 1923b: 3–4; Murayama 1936: 137, 1953: 24, 1954: 205; Niisima 1905: 313–317, 1909: 167; Nobuchi 1980b: 46; Nunberg 1951: 261–265, 1960: 287–308; Sampson 1921: 36; Schaufuss 1891: 31, 1905: 11–12; Schedl 1931d: 118–122, 1957e: 865–883, 1962k: 577, 1975b: 199–267, 1977b: 225; Spessivtsev 1931: 83; Stark 1952: 441–442; Stebbing 1914: 604; Van Hall 1922: 1–42; Wichmann 1954: 539; Wood, S. L. 1957a: 342–343, 1986a: 61; Zazawa 1957: 287–308.

africanus Eggers 1920: 122. Holotype ♀; Sesse am Victoria Nyanza, Africa; MCG, Genova.

Figures: Schedl 1975b: 234 (male).

Distribution: Africa (Ivory Coast/ Tanzania/ Uganda/ Zaire).

Hosts: *Albizia zygia*, *Maesopsis eminii*, *Pseudospondias microcarpa*.

Notes: (3) Eggers 1932d: 294 (described male). Schedl 1975b: 233–234 (redescribed).

References: (cn) Anonymous 1970c: 13. (ds) Anonymous 1970c: 13; Browne 1971b: 116; Schedl 1962j: 580, 1964f: 618, 1967e: 220, 1971e: 4, 1975b: 233. (tx) Browne 1971b: 116; Eggers 1920: 122, 1927a: 199, 1932d: 294, 1936c: 37, 39; Schedl 1939g: 170, 1948c: 615–665, 1962h: 72, 1962j: 580–581, 1964f: 618, 1967e: 220, 1975b: 233–234.

armatus Eggers 1924: 109. Holotype ♂; Zwischen Dibatwa und Kilungwe (Congostaat); Eggers Collection, in NHMW, Wien.

Figures: Schedl 1962j: 581, 1975b: 232 (male).

Distribution: Africa (Kenya/ Tanzania/ Zaire).

Hosts: *Albizia* spp., *Allophylus kivuensis*, *Combretum paniculatum*.

Notes: (3) Schedl 1952i: 19 (described female), 1975b: 231–233 (redescribed).

References: (ds) Browne 1971b: 127; Mayne & Donis 1962: 310; Nunberg 1961: 332; Schedl 1962j: 581, 1962k: 1105, 1975b: 231. (tx) Browne 1971b: 113, 127; Eggers 1924: 109; Nunberg 1961: 332; Schedl 1952i: 19, 1962j: 581, 1975b: 231–232, 1979c: 26.

congonus Schedl 1952i: 21. Holotype ♀; Congo Belge: Ituri, Mulungu; MRCB, Tervuren.

Figures: Schedl 1962j: 583, 1975b: 228 (female).

Distribution: Africa (Cameroon/ Kenya/ Nigeria/ Ruanda/ Tanzania/ Uganda/ Zaire).

Hosts: More than 18 host genera (Schedl 1962j: 582, 1975b: 227).

Notes: (3) Schedl 1957d: 116 (described male), 1975b: 227 (redescribed).

References: (**hb**) Schedl 1962j: 582. (**ds**) Browne 1971b: 114; Gardner 1957a: 32; Mayne & Donis 1962: 310; Schedl 1962j: 582, 1975b: 227. (**tx**) Browne 1971b: 114–116; Roberts 1969: 128; Schedl 1952i: 21, 1957d: 116, 1962j: 582–584, 1975b: 227–228, 1979c: 63.

daimio Blandford 1893d: 433. Syntypes ♂ ♀; Japan, Nikko; BMNH, London.

Figures: Nakane et al. 1963: 384, Nobuchi 1980b: 45, Schedl 1975b: 252 (male), Tsai & Li 1959: 104. Distribution: Asia (Japan/ E USSR).

Hosts: *Acer* sp., *Ahus* spp., *Corvus* sp., *Fagus* sp., *Fraxinus* sp., *Pyrus* sp., *Quercus* sp., *Abies* sp.

Notes: (3) Schedl 1975b: 251 (redescribed).

References: (**cn**) Anonymous 1980g; Inouye & Yamaguchi 1955a: 235; Katsumata 1940: 194–198. (**ce**) Inouye & Yamaguchi 1955a: 235. (**hb**) Krivolutskaya 1973: 143; Niisima 1907: 315–316; Stark 1952: 442. (**ds**) Anonymous 1980g; Blandford 1894c; Gebien 1907: 223; Hagedorn 1910d: 117; Kleine 1913b: 171, 1914b: 262, 1934a: 179; Krivolutskaya 1965a: 242, 1973: 143; Murayama 1953c: 145, 162, 1954b: 185; Nakane et al. 1963: 384; Nobuchi 1980b: 51; Schedl 1971f: 148, 1975b: 251; Stark 1952: 442. (**tx**) Blandford 1893d: 433, 1894d: 580; Hagedorn 1904c: 410, 413, 1904d: 126–127, 1905b: 64, 1910a: 161; Murayama 1936: 149, 1953: 163, 1954b: 185–186, 1961: 26, 28; Nakane et al. 1963: 384, pl. 192; Niisima 1909: 167–168, 1910a: 5; Nobuchi 1980b: 45, 51; Schaufuss 1905: 11; Schedl 1934f: 1646, 1952c: 61, 1954a: 138, 1975b: 251–252; Stark 1952: 442–443; Strohmeier 1908: 1; Tsai & Li 1959: 104; Wichmann 1954: 539.

muticus Hagedorn 1904c: 124. Syntypes 1 ♂, 2 ♀; Nippon (Japan); ♂ MNHN, Paris, 2 ♀ lost with Hamburg Museum. Synonymy: Schedl 1952c: 61.

References: (**ds**) Hagedorn 1910d: 117; Kleine 1913b: 172, 1914b: 262. (**tx**) Hagedorn 1904c: 124, 1910a: 161; Schaufuss 1905: 5; Schedl 1934f: 1647, 1952c: 61.

darjeelingi Stebbing 1914: 607. Syntypes ♂ ♀; Darjeeling, East Himalaya; FRI, Dehra Dun.

Distribution: Asia (Assam, Bengal, Uttar Pradesh in India).

Hosts: *Acer caesium*, *Ahus nepalensis*, *A. theae-folia*, *Eucalyptus globulus*, *Litsaea* spp., *Prunus nepalensis*, *Quercus lamellosa*, *Symplocos theae-folia*.

References: (**cn**) Mathur & Singh 1961a: 83; Roonwal 1954: 59; Stebbing 1914: 607. (**ce**) Beeson 1922c; Stebbing 1914: 607. (**hb**) Beeson 1922c; Stebbing 1914: 607. (**ds**) Beeson 1922c, 1961: 295; Kleine 1934a: 179; Mathur & Singh 1961a: 83; Nobuchi 1967: 24; Roonwal 1954: 59.

(**tx**) Eggers 1939c: 114; Schedl 1975b: 200, 217; Stebbing 1914: 607.

eichelbaumi Hagedorn 1905b: 64. Syntypes 2 ♂; Amani, Deutsch-Ost-Afrika; Hamburg Museum, lost.

Figures: Browne 1971b: 124, Schedl 1962j: 585, 1975b: 230 (male).

Distribution: Africa (Ghana/ Kenya/ Nigeria/ Tanzania/ Zaire).

Hosts: *Acacia mollissima*, *Albizia* spp., *Ekebergia* sp., *Trichilia lanata*.

Notes: (3) Schedl 1979c: 87 (invalid designation of neotype), 1957e: 878 (described var. *grandidentatus*, no status), 1957e: 879 (described var. *aervidentatus*, no status), 1975b: 230–231 (redescribed).

References: (**ds**) Browne 1961e: 13, 1963a: 233, 1971b: 124; Gardner 1957a: 32; Gebien 1907: 222; Hagedorn 1910d: 117; Kleine 1913b: 171, 1914b: 323; Schedl 1962h: 64, 1962j: 585, 1965e: 356, 1975b: 230. (**tx**) Browne 1971b: 124; Eggers 1923a: 179; Hagedorn 1905b: 64, 1908: 382, 1910a: 160, 1913b: 382; Powell, W. 1980: 29; Roberts 1969: 128; Schedl 1957d: 116, 1957e: 878–879, 1957h: 72, 1962j: 578–585, 1962k: 1105, 1973g: 210, 1975b: 230–231, 1979c: 87.

acuminatus Schedl 1957d: 116. Holotype ♀; Congo Belge, Kivu, route Tshibinda-Bunyakiri, Km 66, 1120 m; MRCB, Tervuren. Synonymy: Browne 1971b: 124.

References: (**tx**) Browne 1961e: 13, 1971b: 124; Roberts 1969: 128; Schedl 1957d: 116; 1962h: 72, 1962j: 578, 1979c: 11.

octospinosus Nunberg 1960: 295. Holotype ♂; Tanganyika Terr.: Ngorogoro, region bogagere, 2300 m; MRCB, Tervuren. Synonymy: Schedl 1962k: 1105.

References: (**tx**) Nunberg 1960a: 295–296; Schedl 1962h: 62, 1962k: 1105.

eutomoides Blandford 1896b: 196. Holotype ♂; Celebes; IRSNB, Brussels, cotype deposited in Eggers Collection, in NHMW, Wien.

Figures: Schedl 1975b: 245 (male).

Distribution: Asia (Bangladesh/ Burma/ Assam, Bengal in India), Indonesia (Celebes, Java).

Hosts: *Cryptocarya wrightiana*, *Ilex diplyrena*, *Swietenia mahagoni*.

Notes: (3) Schedl 1975b: 244 [treatment of this name includes a mixture of at least two biological species (SLW)].

References: (**hb**) Kalshoven 1959a: 225, 1959c: 169. (**ds**) Gebien 1907: 223; Hagedorn 1910d: 117; Kalshoven 1924: 8, 1959c: 169; Kleine 1913b: 171, 1914b: 295, 1928: 309; Menzel 1923b: 3–4; Nobuchi 1979a: 407; Sampson 1921: 37; Schedl 1965g: 24, 1974c: 262, 1975b: 244. (**tx**) Blandford 1896b: 195–196, 1898a: 426; Browne 1955: 361, 1968b: 644; Eggers 1920: 122, 1923: 164; Hagedorn 1904a, 1904c: 407, 413, 1910a:

- 161; Kalshoven 1959a: 225; Sampson 1921: 36–37; Schaufuss 1905: 11; Schedl 1950f: 46–49, 1954c: 155, 1975b: 244–245.
- brahma* Blandford 1898: 425. Holotype ♀; India, Chittagong Hills; BMNH, London. Synonymy: Browne 1955: 361.
References: (cn) Hagedorn 1913a; Mathur & Singh 1960b: 63, 1961a: 80; Stebbing 1914: 607. (cc) Stebbing 1914: 607. (hb) Hagedorn 1913a; Stebbing 1914: 607. (ds) Beeson 1961: 295; Hagedorn 1910d: 117, 1913a; Kleine 1913b: 171, 1934a: 179; Mathur & Singh 1960b: 63, 1961a: 80. (tx) Blandford 1898: 425; Browne 1955: 361; Eggers 1920; Hagedorn 1904c, 1904d, 1910a: 161; Schedl 1952k: 159, 1954a: 144; Stebbing 1914: 607.
- hamatus* Hagedorn 1904b: 260. Syntypes 4 ♂ ♀; Ost-Java (Montes Tenggler); Hamburg Museum, lost. Synonymy: Schedl 1952k: 159. References: (cn) Kleine 1932a: 309; Menzel 1923b: 3–4. (hb) Kleine 1932a: 309. (ds) Hagedorn 1910d: 117; Kalshoven 1924b: 357; Kleine 1913b: 171, 1914b: 288, 1932a: 309, 1934a: 179. (tx) Browne 1955: 361; Eggers 1920: 122, 1923a: 164–165, 1935b: 242; Hagedorn 1904b: 260, 1904c, 1910a: 161; Schaufuss 1905: 5; Schedl 1931d: 118, 1942d: 1, 1951i: 46, 1952k: 159, 1954a: 144.
- bombycinus* Browne 1955: 361. Holotype ♂; Malay Peninsula: Kelantan, Jeram; BMNH, London. Synonymy: Schedl 1975b: 217. References: (hb) Browne 1961c: 190. (ds) Beaver & Browne 1975: 295; Browne 1955: 361, 1961c: 190–191, 1962c: 201, 1968b: 644. (tx) Browne 1955: 361; Schedl 1975b: 217.
- fasciatus* Hagedorn 1904c: 405. Holotype ♂; Caffraria; Hamburg Museum, lost. Distribution: Africa (Ethiopia/ Kenya/ Tanzania/ South Africa).
Hosts: *Bersama* sp., *Buxus* sp., *Cedrus* sp., *Grevillea* sp., *Gymnosporia* sp., *Maba* sp., *Maytenus* sp., *Prunus domestica*.
Notes: (3) Schedl 1957c: 325 (described female), 1975b: 224 (redescribed).
References: (cn) Anonymous 1970c: 13. (ds) Anonymous 1970c: 13; Browne 1971b: 122, 1975b: 394; Gardner 1957: 32; Gebien 1907: 222; Hagedorn 1910d: 117; Kleine 1913b: 171, 1914b: 317; Numberg 1964a: 235; Schedl 1962b: 61, 1962j: 587, 1965g: 20, 1970h: 180, 1975b: 224, 1975k: 278, 1982: 279. (tx) Browne 1971b: 122; Hagedorn 1904c: 405, 1905b: 63, 1910a: 160, 1910d: 117, 1913b: 257; Numberg 1964: 235; Schaufuss 1905: 11; Schedl 1953d: 70–72, 1955d: 272, 1955i: 213, 1957b: 151, 1957c: 325, 1960b: 164, 1962h: 64, 1962j: 587, 1962k: 1106, 1965g: 21, 1970h: 180, 1975b: 202–219, 224.
- strohmeieri* Eggers 1920: 123. Holotype ♂; Kikuyu, British-Ostafrika; MNB, Berlin. Synonymy: Browne 1971b: 122.
References: (ds) Gardner 1957a: 32; Schedl 1962j: 593. (tx) Browne 1971b: 122; Eggers 1920: 123; Powell, W. 1980: 29; Schedl 1955i: 212, 1962j: 593.
- maculatus* Numberg 1960: 299. Holotype ♂; Tanganyika; MRCB, Tervuren. Synonymy: Schedl 1962h: 64.
References: (tx) Numberg 1960a: 296, 298–299; Schedl 1962h: 64, 1962k: 1106.
- glaber* Eggers 1935b: 240. Lectotype ♀; Pahang, F. M. S. Cameron Highland, 4800 ft.; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 105.
Distribution: Asia (Malaya).
Notes: (1) Schedl 1979c: 105 [designated the Eggers male as lectotype; however, it was not a syntype and was not eligible for such designation (SLW)]. (3) Schedl 1975b: 242–243 (redescribed).
References: (ds) Browne 1961c: 192, 1965a: 188–189; Schedl 1965g: 24, 1975b: 242. (tx) Eggers 1935b: 240; Schedl 1975b: 242, 1979c: 105.
- hirsutus* Blackman 1943d: 124. Holotype ♀; Buitenzorg, Java; USNM, Washington.
Distribution: Indonesia (Java).
Hosts: *Erythrina lithosperma*.
Notes: (3) Browne 1955: 361 (treated as = *eutomoides*), Schedl 1975b (this name not listed).
References: (hb) Kalshoven 1959a: 225. (tx) Blackman 1943d: 124; Browne 1955: 361; Kalshoven 1959a: 225; Schedl 1952k: 159.
- hova* Schaufuss 1905: 12. Holotype ♀; Madagascar; Hamburg Museum, lost.
Figures: Schedl 1975b: 240 (male, female).
Distribution: Madagascar.
Hosts: *Cinchona ledgeriana*, *C. succirubra*.
Notes: (3) Schedl 1975b: 239–241 (redescribed).
References: (hb) Paulian 1950: 8. (ds) Breniere & Dubois 1965: 20, 125; Hagedorn 1910d: 117; Kleine 1913b: 171, 1914b: 326; Schedl 1975b: 239, 1977b: 227. (tx) Eggers 1920: 122; Hagedorn 1905: 63, 1910a: 160, 1910d: 117, 1913b: 257; Schaufuss 1905: 7, 12; Schedl 1953d: 72, 1975b: 239, 1977b: 227–228.
- javanus* Eggers 1923a: 164. Lectotype ♀; Java; USNM, Washington, designated by Anderson & Anderson 1971: 16.
Distribution: Asia (Malaya), Indonesia (Java, Sumatra), Philippine Islands (Luzon).
Notes: (3) Schedl 1975b: 216 (treated as = *eutomoides*).
References: (cn) Kalshoven 1959c: 170; Yunus & Hua 1980: 229. (cc) Browne 1955b. (hb) Browne 1958b, 1961c: 191; Kalshoven 1959c: 170. (ds) Beaver & Browne 1975: 295; Browne 1961c: 191–192; Schedl 1966b: 82, 1975a: 453; Yunus & Hua 1980: 229. (tx) Anderson, W. H. & Anderson 1971: 16; Browne 1955: 361; Eggers 1920, 1923a:

164–165, 1935b: 244; Schedl 1920: 122, 1931d: 118, 122, 1939e: 329, 1942a: 170, 1942c: 192, 1942d: 1, 1951i: 46, 1952k: 159, 1954a: 144, 1975b: 216, 1979e: 129.

piceus Blackman 1943d: 122. Holotype ♂; Mt. Banahao, Luzon, Philippine Islands; USNM, Washington. Synonymy: Schedl 1952k: 159.

References: (tx) Blackman 1943d: 122; Schedl 1952k: 159.

kivueusis Schedl 1957d: 117. Holotype ♂; Congo Belge: Hembe Bitale; MRCB, Tervuren.

Figures: Schedl 1975b: 228 (female).

Distribution: Africa (Kenya/ Uganda/ Zaire).

Hosts: *Acacia* spp., *Alchornea* sp., *Carapa* sp., *Cassipourea* sp., *Celtis* sp., *Ekelbergia* sp., *Ficus* sp., *Gymnosporia* sp., *Maesa* sp., *Maesobothrya* sp., *Panda* sp., *Podocarpus* sp., *Syzgium* sp.

References: (ec) Schedl 1958d: 192. (hb) Schedl 1962j: 588. (ds) Gardner 1957a: 32; Mayne & Donis 1962: 310; Schedl 1962h: 72, 1962j: 588, 1963a: 29, 32, 1971e: 4, 1975b: 228. (tx) Browne 1971b: 114; Roberts 1969: 128; Schedl 1955i: 213, 216, 1957d: 117, 1958d: 192, 1962h: 72, 1962k: 588–592, 1975b: 228, 1979c: 133.

mikado Blandford 1893d: 437. Syntypes ♂ ♀; Japan, Nikko, Oyama, Sapporo, and Nyayama; BMNH, London.

Figures: Blandford 1893d: figs. 4–5, Nakane et al. 1963: pl. 192, Nobuchi 1980b: 45, Schedl 1975b: 249 (male).

Distribution: Asia (Fujian, Sichuan in China/ India/ Japan/ Korea/ Malaysia/ Sakhalin Island in USSR/ Taiwan).

Hosts: *Acanthopanax*, *Acer* spp., *Alnus* sp., *Bambusa* sp., *Benzoin* sp., *Carapa* sp., *Cinnamomum camphora*, *Cornus* sp., *Fagus* sp., *Macaranga* sp., *Machilus* spp., *Phyllostachys* spp., *Prunus* sp., *Quercus* spp.

Notes: (3) Schedl 1975b: 248–249 (redescribed). References: (cn) Anonymous 1980g; Kenny et al. 1989; Shiraki 1952; Uchida et al. 1958: 181; Ueno 1960. (cc) Banno, Mikata, & Kodama 1963: 445; Inouye et al. 1955: 86, 87; Kenny et al. 1989. (hb) Inouye et al. 1955: 86–87; Niisima 1907: 314. (ds) Anonymous 1980g; Beeson 1922c: 499–500, 1941: 384; Blandford 1894c; Cho 1957, 1963; Choo 1983: 35; Choo & Woo 1985: 163; Choo, Woo, & Nobuchi 1988a: 133; Hagedorn 1910d: 117; Kleine 1913b: 171, 1914b: 262, 270, 1934a: 179; Ko 1969: 282; Ku 1964; Mengel 1923; Murayama 1929b: 2, 1930b: 23, 1931a: 48, 1934d: 511, 1936a: 137, 1936b: 117, 1937b: 375, 1949c: 104, 1950b: 1298, 1953c: 145, 162, 1954b: 186, 1955: 100; Nakane et al. 1963: 384; Nobuchi 1967: 24, 1980b: 47; Nohira & Ogawa 1986; Schedl 1971f: 148, 1975b: 248, 1975c: 384; Shiraki 1952. (tx) Blandford 1893d: 437, 1894c: 580, 1894d: 126–127, 1896b: 195–196, 1898a: 425–426; Choo 1983: 35; Eggers 1939c: 114; Hagedorn 1904b:

261, 1904c: 410–413, 1904d: 122, 126, 1905b: 64, 1910a: 161; Hopkins 1914: 130; Krivolutskaia 1958: 170; Murayama 1928a: 288, 1929b: 1–13, 1930b: 23, 27, 31, 1931a: 48–49, 1934c: 300, 1934d: 505–512, 1936a: 137, 1937b: 375, 1950b: 1298, 1954b: 186, 1955: 100–101; Nakane et al. 1963: 384, pl. 192; Niisima 1907: 313–316, 1909: 167–169, 1910a: 15, 1913a: 5; Nobuchi 1967: 24–25, 1980b: 45, 47; Schaufuss 1905: 11; Schedl 1931d: 122, 1934f: 1647, 1975b: 248–249; Strohmeyer 1908: 2–4, 1909: 249, 1914: 32; Takahashi 1989: 403; Wylie & Yule 1977.

sinensis Tsai & Huang 1965: 123. Holotype ♂;

Fukien: Nanjing; IZAS, Beijing. Synonymy: Wood 1989: 175.

References: (tx) Tsai & Huang 1965: 123; Wood, S. L. 1989: 175.

minus Hagedorn 1904d: 125. Holotype ♀; Darjiling; MNHN, Paris.

Distribution: Asia (Assam, Bengal, Uttar Pradesh in India).

Hosts: *Alnus nitida*, *Cornus macrophylla*, *Machilus odorissima*, *Prunus armeniaca*, *Salix tetrasperma*, *Wendlandia tinctoria*.

Notes: (3) Schedl 1975b: 246 (described male), 1975b: 247 (redescribed).

References: (cn) Kleine 1932a: 309; Mathur & Singh 1960a: 25, 1961b: 90; Roonwal 1954: 60. (cc) Beeson 1922c: 499. (hb) Beaver & Browne 1975: 295; Beeson 1922c: 499; Kleine 1932a: 309. (ds) Beaver & Browne 1975: 295; Beeson 1922c: 499, 1941: 384, 1961: 295; Hagedorn 1910d: 117; Kleine 1913b: 171, 1914b: 277, 1928: 309, 1932a: 309, 1934a: 179; Mathur & Singh 1960a: 25, 1961b: 90; Roonwal 1954: 60. (tx) Beeson 1922c: 499; Eggers 1935b: 243–244; Hagedorn 1904c: 413, 1904d: 125, 1910a: 161; Schaufuss 1905: 11, 15; Schedl 1975b: 247.

mutabilis Schedl 1965c: 78. Holotype ♂; Madagascar, Perinet; Schedl Collection in NHMW, Wien.

Figures: Schedl 1975b: 238 (male).

Distribution: Madagascar.

Notes: (3) Schedl 1975b: 239 (redescribed).

References: (ds) Schedl 1975b: 239. (tx) Schedl 1965c: 78, 1975b: 238–239, 1977b: 230, 1979c: 162.

namus Schedl 1931d: 118. Holotype ♀; Java, Mount Salak, 800 m; Schedl Collection in NHMW, Wien. Distribution: Indonesia (Java).

Notes: (3) Schedl 1975b: 255 (redescribed).

References: (hb) Kalshoven 1959e: 171. (ds) Kalshoven 1959e: 171; Schedl 1975b: 255. (tx) Eggers 1935b: 243; Schedl 1931d: 118, 1975b: 255, 1979c: 163.

neglectus Schedl 1975b: 235. Holotype ♂; Belgisch Congo, Route Tshibinda-Bunyakiri, Km 77, 1000 m; Schedl Collection in NHMW, Wien.

Figures: Schedl 1975b: 235 (female).

Distribution: Africa (Zaire).

Hosts: *Panda oleosa*.

- References: (tx) Schedl 1975b: 235, 1979c: 164.
- nitidicollis** Eggers 1935b: 241. Holotype ♀; Java, Batoerraden; Eggers Collection, in NHMW, Wien.
- Distribution: Indonesia (Java).
- Notes: (3) Schedl 1975b: 251 (redescribed).
- References: (ds) Schedl 1975b: 251. (tx) Eggers 1935b: 240–241, 1939b: 10; Schedl 1975b: 251, 1979c: 168.
- nitidus** Eggers 1923a: 166. Syntypes 2 ♀; Mt. Singalang auf Sumatra; MCG, Genova and MNB, Berlin.
- Figures: Schedl 1975b: 265 (male).
- Distribution: Indonesia (Java, Sumatra).
- Hosts: *Acacia decurrens*, *Cinchona* sp., *Eupatorium* sp., *Ficus fistulosa*, *Podocarpus imbricata*.
- Notes: (3) Eggers 1927b: 405 (described male). Schedl 1975b: 264 (redescribed).
- References: (hb) Kalshoven 1959c: 171; Wichmann & Sorauer 1954: 539. (ds) Kalshoven 1959c: 171; Kleine 1934a: 179; Schedl 1975b: 264. (tx) Eggers 1923a: 166, 1927b: 390, 405; Schedl 1942d: 1, 1951i: 46, 48, 1954a: 144, 1975b: 264–265, 1979c: 170.
- obtectus** Schedl 1975b: 226. Holotype ♂; Sudafrika, Willowvale, Cape Province, Alexandria; NICP, Pretoria.
- Distribution: Africa (South Africa).
- Hosts: *Buxus macrowanii*.
- References: (tx) Schedl 1975b: 226–227, 1979c: 175.
- occidentalis** Browne 1971b: 118. Holotype ♂; Ghana: Bobiri, Kumasi; MRCB, Tervuren.
- Distribution: Africa (Ghana/ Nigeria/ Sierra Leone).
- Hosts: *Bussca* sp., *Macaranga* sp., *Parkia* sp., *Sterculia* sp., *Trichilia* sp.
- Notes: (3) Schedl 1975b: 236–237 (redescribed).
- References: (ds) Schedl 1975b: 236. (tx) Browne 1971b: 118–119; Schedl 1972q: 260, 1975b: 236.
- opacicollis** Eggers 1936c: 38. Holotype ♂; S. Rhodesia: Salisbury; BMNH, London.
- Figures: Schedl 1975b: 226 (male).
- Distribution: Africa (Zambia).
- Notes: (3) Schedl 1975b: 225 (redescribed male).
- References: (ds) Browne 1971b: 123; Schedl 1975b: 225. (tx) Browne 1971b: 113, 123; Eggers 1936c: 38; Schedl 1962j: 592–593, 1975b: 225–226.
- papuanus** Eggers 1923a: 165. Holotype ♂; Deutsch Neu Guinea, Etappenberg am Kaiserin Augustafluss; MNB, Berlin.
- Distribution: New Guinea, Philippine Islands.
- Notes: (3) Schedl 1975b: 216 (treated as = *eutomoides*).
- References: (ds) Schedl 1966b: 82. (tx) Eggers 1923a: 165; Schedl 1931d: 118, 1942c: 192, 1951i: 52, 1952k: 159, 1954a: 138, 1979c: 184.
- luzonicus** Eggers 1935b: 244. Holotype ♀; Philippinen (Luzon, Benguet, Baguio); USNM, Washington. Synonymy: Wood 1989: 175.
- Notes: (3) Schedl 1975b: 217 (treated as = *eutomoides*).
- References: (tx) Anderson, W. H. & Anderson 1971: 8; Eggers 1935b: 244; Schedl 1952b: 365, 1979c: 143; Wood, S. L. 1989: 175.
- macgregori** Blackman 1943d: 121. Holotype ♂; Port Galera, Mindoro, Philippine Islands; USNM, Washington. Synonymy: Schedl 1952k: 159.
- References: (tx) Blackman 1943d: 121; Schedl 1952k: 159.
- benguetus** Blackman 1943d: 123. Holotype ♀; Benguet, Luzon, Philippine Islands; USNM, Washington. Synonymy: Schedl 1975b: 217.
- References: (ds) Schedl 1966b: 81. (tx) Blackman 1943d: 123; Schedl 1975b: 217.
- setosus** Schedl 1942c: 192. Holotype ♂; Neu Guinea; Schedl Collection in NHMW, Wien.
- Synonymy: Schedl 1975b: 217.
- References: (tx) Schedl 1942c: 192, 1975b: 217, 1979c: 226.
- parvus** Sampson 1921: 36. Holotype ♂; Mt. Matang, Sarawak; BMNH, London.
- Distribution: Asia (Burma/ Bengal in India/ Malaysia), Indonesia (Sarawak in Borneo).
- Hosts: *Dipterocarpus* sp., *Dryobalanops* sp., *Engelhardtia spicata*, *Eugenia* sp., *Grewia* sp., *Heritiera* sp., *Mandani* sp., *Shorea* sp.
- Notes: (3) Browne 1949b: 909 (described male). Schedl 1975b: 259 (original description quoted).
- References: (cn) Yunus & Hua 1980: 229. (ec) Browne 1958b: 176. (hb) Browne 1958b: 176, 1961c: 191–193. (ds) Browne 1961c: 193; Sampson 1921: 36; Schedl 1975b: 259; Yunus & Hua 1980: 229. (tx) Browne 1949b: 909; Eggers 1935b: 243; Sampson 1921: 36; Schedl 1975b: 259.
- ruficauda** Eggers 1939b: 9. Holotype ♀; Kambaiti, Nordost-Birma, 7000 ft.; NHR, Stockholm. Synonymy: Wood 1992b: 84.
- Notes: (3) Schedl 1975b: 265 (redescribed).
- References: (ds) Schedl 1975b: 265. (tx) Eggers 1939b: 9; Schedl 1975b: 265; Wood, S. L. 1992b: 84.
- paucegranulatus** Eggers 1935b: 242. Lectotype ♀; Java (Batoerraden); USNM, Washington, designated by Anderson & Anderson 1971: 24.
- Figures: Schedl 1975b: 244 (male).
- Distribution: Indonesia (Java).
- Notes: (3) Schedl 1975b: 243–244 (redescribed).
- References: (ds) Schedl 1975b: 243. (tx) Anderson, W. H. & Anderson 1971: 24; Eggers 1935b: 243; Schedl 1975b: 243–244, 1979c: 186.
- permirus** Schaufuss 1891: 31. Holotype ♂; Madagascar; Hamburg Museum, lost.
- Figures: Schedl 1975b: 242 (male, female).
- Distribution: Madagascar.

Hosts: *Cinchona* sp.

Notes: (3) Blandford 1893d: 435 (redescribed). Schedl 1975b: 241 (redescribed), 1979c: 190 (invalid designation of neotype).

References: (cc) Schedl 1977b: 231. (hb) Schedl 1977b: 231. (ds) Alluaud 1900: 441; Anonymous 1892: 165–166; Fairmaire 1892b; Hagedorn 1910d: 117; Kleine 1913b: 171, 1914b: 326; Schedl 1975b: 241, 1977b: 231. (tx) Blandford 1893d: 435–437; Eggers 1920: 122; Fairmaire 1892b; Hagedorn 1904c: 406, 413, 1904d, 1905b: 63, 1910a: 160, 1913b: 257; Hopkins 1914: 129, 134; Lucas 1920: 572; Schaufuss 1891: 31; Schedl 1953d: 67, 71–72, 1965c: 78, 1975b: 241–242, 1977b: 231, 1979c: 190. (ms) Lucas 1920: 572.

madagascariensis Schedl 1953d: 71. Holotype ♂; Madagascar, Mt. d'Ambre; IRSM, Madagascar. Synonymy: Schedl 1975b: 216.

References: (tx) Schedl 1953d: 71, 1965c: 78, 1975b: 216, 1977b: 229–230, 1979c: 145.

pubescens Hagedorn 1904d: 123. Syntypes, sex?; Dardjiling; Hamburg Museum, lost.

Figures: Nobuchi 1967: pl. 2, Schedl 1975b: 261 (male, male frons).

Distribution: Asia (Assam, Bengal, Uttar Pradesh in India).

Hosts: *Acer campbelli*, *Alnus nepalensis*, *Amoora wallichii*, *Engelhardtia spicata*, *Evodia fraxinifolia*, *Litsaea elongata*, *Prunus nepalensis*, *Quercus incana*.

Notes: (3) Schedl 1975b: 260 (redescribed).

References: (ay) Gardner 1934b. (cn) Anonymous 1979p; Mathur & Singh 1961a: 84; Roonwal 1954: 29. (cc) Beeson 1922c: 499. (hb) Beeson 1922c: 499. (ds) Anonymous 1979p; Beaver & Browne 1975: 295; Beeson 1922c: 499, 1961: 295; Hagedorn 1910d: 117; Kleine 1913b: 172, 1914b: 277, 1934a: 179; Mathur & Singh 1961a: 84; Murayama 1934d: 512; Nobuchi 1967: 24; Roonwal 1954: 29; Schedl 1975b: 260. (tx) Eggers 1925: 160, 1939c: 114; Gardner 1934b; Hagedorn 1904c, 1904d: 123, 1905b: 64, 1910a: 161; Nobuchi 1967: pl. 2; Schaufuss 1905: 5; Schedl 1975b: 260–261.

pusillus Eggers 1935b: 243. Holotype ♂; Philippinen (Luzon: Baguio); USNM, Washington.

Figures: Schedl 1975b: 254 (male).

Distribution: Philippine Islands.

Hosts: *Dryobalanops oblongifolia*, *Ficus* sp., *Mallotus ricinoides*, *Pinus insularis*.

Notes: (3) Schedl 1975b: 253–255 (redescribed). References: (ds) Browne 1961c: 192; Nobuchi 1979a: 407; Schedl 1966b: 82, 1971c: 362, 1975b: 253. (tx) Anderson, W. H. & Anderson 1971: 27; Eggers 1935b: 243; Schedl 1952b: 365, 1975b: 253–254, 1979c: 206.

raja Blandford 1893d: 440. Syntypes 1 ♂, 1 ♀; India (Himalaya); ♂ in BMNH, London, ♀ in IRSNB, Brussels.

Figures: Nobuchi 1967: pl. 2.

Distribution: Asia ("China"/ Assam, Bengal, Himachal Pradesh, Kashmir, Uttar Pradesh in India/ Nepal).

Hosts: *Abies webbiana*, *Acacia decurrens*, *Cedrus deodara*, *Cornus macrophylla*, *Engelhardtia spicata*, *Litsaea elongata*, *Macaranga denticulata*, *Machilus odoratissima*, *Picea morinda*, *Prunus nepalensis*, *Quercus* spp., *Symplocos theaeifolia*.

References: (cn) Mathur & Singh 1960a: 25, 1961a: 84; Roonwal 1954: 29; Yunus & Hua 1980: 229. (cc) Beeson 1922c: 499–500. (hb) Beeson 1922c: 499–500; Bhalla & Sharma 1963: 86. (ds) Beaver & Browne 1975: 295; Beeson 1922c: 499–500, 1961: 296; Bhalla & Sharma 1963: 86; Blandford 1896b; Browne 1961c: 192; Hagedorn 1910d: 117; Kleine 1913b: 171, 1914b: 277, 1934a: 179; Mathur & Singh 1960a: 25, 1961a: 84; Nobuchi 1967: 24; Roonwal 1954: 29; Schedl 1936d: 5, 329, 1962b: 185, 1965a: 340, 1969c: 55, 1973b: 211, 1974c: 262; Yin & Huang 1981: 565; Yunus & Hua 1980: 229. (tx) Blandford 1893d: 440; Eggers 1939c: 114; Hagedorn 1904c, 1904d, 1910a: 161; Nobuchi 1967: pl. 2; Schedl 1939c: 329; Strohmeyer 1908a: 161; Yin & Huang 1981: 565.

himalayensis Stebbing 1914: 604. Holotype ♂; labeled Chamba St., Punjab, published as North-West Himalaya; FRI, Dehra Dun. Synonymy: Beeson 1922c: 500.

References: (cn) Stebbing 1914: 604. (cc) Stebbing 1914: 604. (hb) Stebbing 1914: 604. (tx) Beeson 1922c: 500; Stebbing 1914: 604.

shogun Blandford 1894d: 126. Syntypes ♂ ♀; Higo, Japan; IRSNB, Brussels.

Figures: Nobuchi 1980b: 45, 1975b: 257.

Distribution: Asia (Japan).

Hosts: *Acer* spp., *Fagus* sp., *Magnolia* sp., *Abies* sp. References: (cn) Anonymous 1980g; Nakashima 1983; Wichmann 1954: 539. (cc) Banno, Mikata, & Kodama 1983: 445; Nakashima 1983, 1989; Nakashima, Goto, & Iizuka 1987. (ds) Anonymous 1980g; Blandford 1894c: 580; Hagedorn 1910d: 117; Kleine 1913b: 172, 1914b: 262, 1934a: 179; Murayama 1934c: 300, 1936a: 137–138, 1954b: 186; Nobuchi 1967: 13, 25, 1980b: 50; Schedl 1975b: 257. (tx) Blandford 1894d: 126; Hagedorn 1904c: 409–410, 413, 1904d: 122, 1910a: 161; Murayama 1934c: 300, 1936a: 137, 1954b: 186–187, 205, 1961: 104; Niisima 1907: 313, 1909: 167, 169; Nobuchi 1980b: 45, 50; Schaufuss 1905: 11; Schedl 1934f: 1647, 1975b: 257; Schedl, W. 1962: 376–378.

siomio Blandford 1893d: 436. Syntypes ♂ ♀; Japan, Nikko, Sendai; BMNH, London.

Figures: Schedl 1975b: 258 (male).

Distribution: Asia (Bhutan/ Bengal, Kashmir,

Himachal Pradesh, Punjab, Uttar Pradesh in India/ Japan/ Nepal).

Hosts: *Abies pindrow*, *Acer caesium*, *Cedrus deodara*, *Hedera helix*, *Parrottia Jacquemontiana*, *Picea morinda*, *Prunus padus*, *Pyrus lanata*, *Quercus* spp., *Taxus baccata*.

Notes: (3) Schedl 1975b: 216 (treated as =*clavicornis*). References: (ds) Hagedorn 1910d: 117; Kleine 1913b: 172, 1914b: 262; Murayama 1949c: 104, 1954b: 187. (tx) Blandford 1893d: 436, 1894d; Hagedorn 1904c, 1904d, 1910a: 161; Murayama 1954b: 187; Schedl 1934f: 1647.

kunala Strohmeyer 1908a: 161 (reprint p. 1).

Holotype ♀; Kashmir; IPKE, Eberswalde. Synonymy: Wood 1989: 175.

Notes: (3) Schedl 1975b: 262 (redescribed).

References: (cn) Bhasin, Roonwal, & Singh 1955: 102; Mathur & Singh 1960b: 36, 1961b: 8; Roonwal 1954: 17. (ce) Beeson 1922c: 499. (hb) Beeson 1922c: 499. (ds) Beeson 1922c: 499, 1941: 383–384, 1961: 295; Hagedorn 1910d: 117; Kleine 1913b: 171, 1914b: 271, 1934a: 179; Mathur & Singh 1960b: 36, 1961b: 8; Nobuchi 1967: 13, 24; Roonwal 1954: 9, 17, 29; Schedl 1973b: 211, 1975b: 262, 1975c: 384, 1975e: 452. (tx) Eggers 1939: 114; Hagedorn 1910a: 161; Schedl 1934f: 1647, 1975b: 262–263; Strohmeyer 1908a: 161 (reprint p. 1); Wood, S. L. 1989: 175.

supercilliosus Tsai & Huang 1965: 124. Holotype ♂; Szechuan: Leibo; IZAS, Beijing. Distribution: Asia (Sichuan in China).

Hosts: *Castanopsis fargesii*.

References: (ds) Yin & Huang 1981: 566. (tx) Tsai & Huang 1965: 124; Yin & Huang 1981: 566.

truncatus Browne 1971b: 120. Holotype ♂; Nigeria, Kamatan Forest Reserve; MRCB, Tervuren. Distribution: Africa (Nigeria).

Hosts: *Macaranga* sp.

Notes: (3) Schedl 1975b: 237–238 (redescribed).

References: (ds) Schedl 1975b: 237. (tx) Browne 1971b: 120, Schedl 1975b: 237.

tycon Blandford 1893d: 432. Syntypes ♂ ♀; Japan, Nikko and Kiga; BMNH, London.

Figures: Blandford 1893d: figs. 1–2, Nakane et al. 1963: pl. 192, Nobuchi 1980b: 45.

Distribution: Asia (Japan/ Korea/ Manchuria [Heilongjiang?] in China/ E USSR).

Hosts: *Abies* sp., *Aesculus* sp., *Acer* spp., *Alnus* sp., *Bengoin* sp., *Carpinus* sp., *Fagus* spp., *Fraxinus* sp., *Juglans* sp., *Lindera* sp., *Machilus* sp.,

Parabenzoin sp., *Phellodendron* sp., *Picea* sp., *Pinus* sp., *Populus* sp., *Quercus* sp., *Zelkova* sp.

Notes: (3) Schedl 1975b: 255–256 (redescribed).

References: (cn) Anonymous 1980g; Jehoko 1969: 282; Kurenzov 1935c: 187, 1957c: 78; Shiraki 1952; Uchida et al. 1958: 181. (ce) Banno, Mikata, & Kodama 1983: 445. (hb) Berger & Kholodkovskii 1916: 1–7; Krivolutskaia 1973: 142; Kurenzov 1934a: 57, 1935a: 37, 1948b: 113, 1957c: 24; Niisima 1907: 316; Stark 1952: 443. (ds) Anonymous 1980g; Blandford 1894c; Cho 1957, 1963; Choo 1983: 36; Choo & Woo 1985: 163; Hagedorn 1910d: 117; Kleine 1913b: 172, 1914b: 262, 1934a: 179; Ko 1969: 282; Krivolutskaia 1965a: 243, 1973: 142, 1983; Kurenzov 1934a: 51, 1935a: 37, 1935c: 187, 1936b: 350, 1951: 24, 78–80, 1965; Murayama 1928: 290, 1929b: 2, 1930b: 23, 1931a: 50, 1936a: 138, 1937b: 375, 1948: 6, 1950b: 1298, 1953c: 145, 163, 1954b: 187, 205, 1955: 100, 103, 1961a: 104, 1961b: 26, 28; Nakane et al. 1963: 384; Nobuchi 1967: 25, 1980b: 49; Schedl 1975b: 255; Shiraki 1952; Stark 1952: 443. (tx) Berger & Kholodkovskii 1916: 1–7; Blandford 1893d: 432, 1894c: 580, 1894d: 126–127; Choo 1983: 36; Hagedorn 1904c: 409, 413, 1904d: 122, 1910a: 161; Hopkins 1914: 129, 136; Kurenzov 1941a: 193–195, 1948b: 113; Murayama 1930b: 23, 27, 31, 1931a: 50, 1934c: 300, 1936a: 138, 1937b: 375, 1950b: 1298, 1954b: 187, 1955: 100–101, 103; Nakane et al. 1963: 384, pl. 192; Niisima 1907: 313–316, 1909: 167, 170, 1910a: 5; Nobuchi 1967: 12, 25, 1980b: 45, 49; Schaufuss 1905: 11; Schedl 1934f: 1647, 1941a: 42, 1975b: 255; Schedl, W. 1962: 376; Stark 1952: 442–443; Wichmann 1954: 539.

ussuriensis Berger & Kholodkovskii 1916: 4. Syntypes ♂ ♀; Vladivostok; not given. Synonymy: Schedl, W. 1962: 376.

References: (ay) Farris & Funk 1965: 531. (ce) Farris & Funk 1965: 531. (hb) Berger & Kholodkovskii 1916: 4. (tx) Berger & Kholodkovskii 1916: 4; Schedl 1934f: 1647; Schedl, W. 1962: 376.

uter Schedl 1938d: 457. Syntypes ♂; Kenia Colony, Maktaw; BMNH, London, and Schedl Collection in NHMW, Wien.

Distribution: Africa (Kenya).

Notes: (3) Schedl 1975b: 223 (redescribed male).

References: (ds) Browne 1971b: 121; Schedl 1938d: 457, 1975b: 223. (tx) Browne 1971b: 121; Eggers 1923a: 219; Schedl 1938d: 457, 1962j: 593, 1975b: 223, 1979c: 263.

Tribe Micracini LeConte

Micracides

References: LeConte 1876: 346, 367; LeConte & Horn 1883: 516.

Micracidae

References: Eichhoff 1878b: 302.

Micracinae

References: Beal & Massey 1945: 96; Blackman 1919b; Hopkins 1915c: 224; Leng 1920: 339.

Micracini

References: Handlirsch 1925: 692; Wood, S. L. 1978a: 113, 1982b: 65, 1986a: 61.

Hylocuridae

References: Eichhoff 1878b: 298, 306.

Hylocurinae

References: Hagedorn 1909: 162, 1910a: 24, 110, 1910d: 76; Lucas 1920: 32.

Hylocuri

References: Blandford 1898b: 219; Lucas 1920: 32.

Genus *Lanurgus* Eggers

LANURGUS EGGERS 1920: 36. Type-species: *Lanurgus barbatus* Eggers, monobasic.

Landolphianus Schedl 1950h: 106. Type-species: *Landolphianus elongatus* Schedl, subsequent designation by Schedl 1962j: 38. Synonymy: Schedl 1962j: 38.

References: (tx) Schedl 1950h: 106, 1962j: 38.

Micraciops Schedl 1953d: 86. Type-species: *Micraciops catenatus* Schedl, subsequent designation by Schedl 1962j: 38. Synonymy: Schedl 1962j: 38.

References: (tx) Nunberg 1961: 613; Schedl 1953d: 86, 1962j: 38, 1977b: 122.

Pseudohylocurus Nunberg 1961: 613. Type-species: *Pseudohylocurus caplandicus* Nunberg = *Lanurgus podocarpus* Schedl, original designation. Synonymy: Schedl 1962j: 38.

References: (tx) Nunberg 1961: 613; Schedl 1962j: 38.

References: (hb) Schedl 1958d: 184, 1962h: 65; Wood, S. L. 1986a: 63. (ds) Wood, S. L. 1986a: 63. (tx) Eggers 1920: 36; Nunberg 1961: 613; Schedl 1948c: 665, 1957d: 1–162, 1958a: 557–560, 1959q: 709, 1962j: 38, 1962k: 1083, 1962n: 697, 1977b: 114; Wood, S. L. 1986a: 63.

barbatus Eggers 1920: 37. Lectotype ♀; Serue (Ost-Botschuanaland), Sudafrica; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 34.

Distribution: Africa (South Africa).

Hosts: *Ligustrum* sp.

References: (cn) Anonymous 1970c: 13. (ds) Anonymous 1970c: 13; Schedl 1962j: 38. (tx) Eggers 1920: 37; Schedl 1948c: 665–666, 1957b: 151, 1962k: 38, 1979c: 34.

bicolor Schedl 1961j: 350. Holotype, sex?; Cape Prov., Tonti, S. Africa; NICP, Pretoria. Distribution: Africa (Natal in South Africa).

Hosts: *Hymenocardia capensis*.

References: (tx) Schedl 1961j: 350, 1962j: 39, 1962k: 1084.

capensis Schedl 1965h: 115. Holotype, sex?; Cape Province, Alexandria; TMP, Pretoria.

Distribution: Africa (South Africa).

Hosts: *Ochna arborca*.

References: (tx) Browne 1970: 559; Schedl 1965h: 115.

catenatus (Schedl) 1953d: 86 (*Macraciops*). Lectotype ♀; Madagascar, Pays Androy; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 54.

Distribution: Madagascar.

References: (ds) Schedl 1977b: 122. (tx) Schedl 1953d: 86, 1962h: 69, 1977b: 121–122, 1979c: 54.

cribrellus Schedl 1965c: 67. Holotype ♂?; Madagascar, Sagewerk in Perinet; Schedl Collection in NHMW, Wien.

Distribution: Madagascar.

Hosts: *Eugenia* sp.

References: (tx) Schedl 1965c: 67, 1977b: 115.

elongatus (Schedl) 1950h: 107 (*Landolphianus*). Lectotype ♂; Madagascar; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 89.

Distribution: Madagascar.

Hosts: Liana.

Notes: (3) Schedl 1965c: 65 (described female).

References: (tx) Schedl 1950h: 105–108, 1965c: 65, 1977b: 115, 1979c: 89.

euphorbiae Schedl 1961e: 137. Holotype, sex?; Madagascar, Faux-Cap; IRSM, Madagascar.

Distribution: Madagascar.

Hosts: *Euphorbia stenoclada*.

References: (tx) Schedl 1961e: 137, 1977b: 116.

frontalis Schedl 1953d: 85. Lectotype ♀; Madagascar (S.-O.), plaines du Filherena; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 100.

Distribution: Madagascar.

References: (tx) Schedl 1953d: 85, 1977b: 116, 1979c: 100.

gracilis Schedl 1958h: 559. Holotype, sex?; S. Africa: Zululand, Eshowe; BMNH, London.

Distribution: Africa (South Africa).

Hosts: *Maytenus acuminatus*.

References: (cn) Anonymous 1970c: 13. (ds) Anonymous 1970c: 13; Schedl 1962h: 58, 1962j: 39, 1962k: 1084, 1965h: 112. (tx) Schedl 1958h: 559, 1962j: 39.

minor (Schedl) 1950h: 108 (*Landolphianus*). Syn-types 2 ♀; Madagascar; Schedl Collection in NHMW, Wien, and Flentiaux Collection.

Distribution: Madagascar.

Notes: (3) Schedl 1961e: 138 (described male).

- References: (hb) Schedl 1977b: 116; Wichmann 1954: 525. (ds) Schedl 1977b: 116. (tx) Schedl 1950h: 108, 1961e: 138, 1977b: 116.
- minutissimus** Schedl 1961h: 139. Holotype ♂; Madagascar, scierie a Perinet; IRSM, Madagascar. Distribution: Madagascar. References: (hb) Schedl 1977b: 117. (ds) Schedl 1977b: 117. (tx) Schedl 1961h: 139, 1977b: 117.
- obesus** (Schedl) 1953d: 87 (*Micraciops*). Lectotype ♀; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 174. Distribution: Madagascar. References: (hb) Schedl 1977b: 117. (ds) Schedl 1977b: 117. (tx) Schedl 1953d: 87, 1977b: 117, 1979c: 174.
- oleae** Schedl 1955i: 216. Lectotype ♀; Kenya: Londiani; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 177. Distribution: Africa (Kenya). Hosts: *Olea africana*, *O. hochstetteri*. References: (ds) Gardner 1957a: 31; Schedl 1962j: 40. (tx) Schedl 1955i: 211, 216, 1957b: 156, 1962j: 40, 1979c: 177.
- oleaeformis** Schedl 1970h: 178. Holotype ♀; Cape Prov.: Grootvadersbos; TMP, Pretoria. Distribution: Africa (South Africa). Hosts: *Olea capensis*, *O. laurifolia*, *Podocarpus latifolius*, *Xymalos monospora*. References: (cn) Anonymous 1970c: 13 (ds) Anonymous 1970c: 13. (tx) Schedl 1970h: 178.
- podocarpi** Schedl 1955i: 216. Syntypes ♂ ♀; Kenya: Londiani; BMNH, London, and Schedl Collection in NHMW, Wien. Figures: Numberg 1961b: 626, Schedl 1962j: 41 (antenna). Distribution: Africa (Kenya/South Africa/Tanzania). Hosts: *Cordia caffra*, *Euclea natalensis*, *Podocarpus* sp., *Sussonia* sp., Notes: (1) Schedl 1979c: 196 (Type restricted to BMNH syntypes). References: (ds) Gardner 1957a: 31. (tx) Powell, W. 1980: 29; Schedl 1955i: 211, 216, 1961a: 350, 1962h: 65, 1962j: 40–41, 1962k: 1084, 1962n: 697, 1979c: 196.
- podocarpi** Schedl 1957b: 156. Syntypes ♂ ♀; Kenya, Eldoret; BMNH, London. Synonymy: Schedl 1979c: 196. References: (cn) Anonymous 1970c: 13. (ds) Anonymous 1970c: 13; Schedl 1957b: 156, 1962h: 58, 1962j: 40, 1962k: 1084, 1970h: 180, 1975k: 277. (tx) Schedl 1957b: 156, 1962b: 65, 1962j: 40, 1962k: 1084, 1962n: 697, 1979c: 196.
- caplandicus** Numberg 1961: 613 (*Pseudohylocurus*). Holotype, sex?; Deepwells, Cape Prov.; BMNH, London. Synonymy: Schedl 1962k: 1093–1094, 1962n: 697. References: (tx) Numberg 1961b: 613, 626–627; Schedl 1962h: 65, 1962k: 1093–1094, 1962n: 697.
- pygmaeus** Schedl 1965c: 66. Holotype ♂; Madagascar, Ambila; Schedl Collection in NHMW, Wien. Distribution: Madagascar. References: (hb) Schedl 1977b: 118. (tx) Schedl 1965c: 66, 1977b: 118, 1979c: 207.
- rhusi** Schedl 1962j: 42. Holotype ♀; Transvaal: Bronkhorstfontein; NICP, Pretoria. Distribution: Africa (South Africa). Hosts: *Rhus lancea*. References: (cn) Anonymous 1970c: 13. (ds) Anonymous 1970c: 13; Schedl 1962j: 42, 1975k: 277. (tx) Schedl 1962j: 42, 1979c: 211.
- rugosipes** Schedl 1961e: 138. Holotype, sex?; Madagascar, Faux-Cap; IRSM, Madagascar. Distribution: Madagascar. Hosts: *Euphorbia stenoclada*. References: (tx) Schedl 1961e: 138, 1977b: 119, 1979c: 216.
- spathulatus** Schedl 1948c: 666. Lectotype ♀; Grahamstown, C. P. S. Africa; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 233. Distribution: Africa (South Africa). Hosts: *Cassinae* sp., *Maytenus acuminatus*, *Olea capensis*, *Podocarpus falcatus*. References: (cn) Anonymous 1970c: 13. (ds) Anonymous 1970c: 13; Schedl 1948c: 666, 1962h: 59, 1962j: 43, 1962k: 1085, 1965h: 112, 1970h: 180, 1975k: 277, 1982: 278. (tx) Schedl 1948c: 666, 1979c: 233.
- subdepressus** Schedl 1965c: 66. Holotype ♀; Madagascar, Montagne d'Ambre; Schedl Collection in NHMW, Wien. Distribution: Madagascar. References: (tx) Schedl 1965c: 66, 1977b: 119, 1979c: 241.
- subsulcatus** Browne 1970: 559. Holotype, sex?; Cape Prov., Swellendam; BMNH, London. Distribution: Africa (South Africa). References: (tx) Browne 1970: 559.
- widdringtoniae** Schedl 1962h: 69. Holotype, sex?; Cape Prov., Sederberg, S. Africa; NICP, Pretoria. Distribution: Africa (South Africa). Hosts: *Widdringtonia juniperoides*. References: (ds) Schedl 1962j: 48. (tx) Schedl 1962h: 69, 1962j: 48, 1962k: 1085, 1979c: 269.
- xanthophloeae** Schedl 1957d: 70. Holotype ♀; Kenya: Rift Valley; Schedl Collection in NHMW, Wien. Distribution: Africa (Kenya). Hosts: *Acacia xanthophloea*. References: (cc) Schedl 1962j: 44. (hb) Schedl 1962j: 44. (ds) Schedl 1962j: 44. (tx) Schedl 1957d: 70, 1958h: 559, 1962j: 44, 1979c: 269.
- xylographus** Schedl 1962j: 46. Holotype ♀; Cape Prov.: Alexandria, S. Africa; NICP, Pretoria. Distribution: Africa (Namibia/South Africa).

Hosts: *Cassiniae* sp., *Olea africana*, *O. capensis*.

References: **cn** Anonymous 1970c: 13. **ds** Anonymous 1970c: 13; Schedl 1962h: 59, 1962j: 46, 1962k: 1055, 1977c: 394. **tx** Schedl 1960a: 349, 1962j: 46, 1979c: 270.

Genus *Traglostus* Schedl

TRAGLOSTUS SCHEDL 1938d: 454. Type-species: *Traglostus exornatus* Schedl. monobasic.

References: **hb** Wood, S. L. 1956a: 63. **ds** Wood, S. L. 1956a: 63. **tx** Schedl 1935d: 450, 454, 1955a: 557–560, 1962j: 49; Wood, S. L. 1956a: 63.

brevisetosus Schedl 1957b: 153. Lectotype ♀; Kokstad, Griqualand E.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 47. Distribution: Africa (South Africa). Hosts: *Podocarpus falcatus*.

References: **cn** Anonymous 1970c: 13. **ds** Anonymous 1970c: 13; Schedl 1962j: 49. **tx** Schedl 1957b: 150, 153–154, 1962j: 49, 1979c: 47.

exornatus Schedl 1935d: 454. Lectotype ♂; Kenya, Colony, Londiani; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 94.

Figures: Schedl 1962j: 50 (adult, antenna).

Distribution: Africa (Kenya).

Hosts: *Gymnosporia luteola*.

Notes: 3 Schedl 1941d: 394 (described female). References: **ds** Browne 1970: 540; Gardner 1957a: 31; Schedl 1935d: 454, 1962j: 49. **tx** Schedl 1935d: 454–455, 1941d: 394, 1962j: 49–50, 1979c: 94.

longipilis Schedl 1955h: 555. Holotype, sex?: S. Africa: Aus: BMNH, London.

Distribution: Africa (South Africa).

References: **tx** Schedl 1955h: 555, 1962j: 51, 1979c: 141.

pubescens Schedl 1941d: 395. Holotype ♀; Sud-Afrika, O. Betschuanaland; Schedl Collection in NHMW, Wien.

Distribution: Africa (South Africa).

References: **tx** Schedl 1941d: 395, 1962j: 51, 1979c: 203.

spatulatus Schedl 1952: 252. Holotype, sex?: Transvaal, Pretoria distr., Roodephaat; not seen, repository?

Distribution: Africa (South Africa).

Notes: 3 Allotype and 3 paratypes are in NHMW, Wien.

References: **tx** Schedl 1979c: 233, 1982: 252.

Genus *Miocryphalus* Schedl

MIOCRYPHALUS SCHEDL 1939i: 351. Type-species: *Stephanoderes natalensis* Eggers, monobasic.

Afromicracis Schedl 1959q: 709. Type-species: *Afromicracis kenyaensis* Schedl. monobasic. Synonymy: Wood 1956a: 63.

References: **tx** Schedl 1959q: 709, 1962j: 37; Wood, S. L. 1956a: 63.

Notes: 3 A careful study of this genus is needed. A mixture of unrelated genera may be included in the species listed here.

References: **hb** Wood, S. L. 1956a: 63. **ds** Wood, S. L. 1956: 63. **tx** Eggers 1940: 102; Schedl 1939i: 351–352, 1957d: 52–54, 1961j: 349, 1961k: 534, 1962j: 349–379, 1977b: 57; Wood, S. L. 1956a: 63.

agnatus Schedl 1942c: 165. Holotype, sex?: Melville-Insel; Schedl Collection in NHMW, Wien.

Distribution: Australia (Melville Island).

References: **tx** Schedl 1939i: 351, 1942c: 165, 1979c: 15.

angolensis (Schedl) 1962k: 1051 (*Afromicracis*). Holotype, sex?: Angola: Lunda, Nova Chaves; Schedl Collection in NHMW, Wien.

Distribution: Africa (Angola).

References: **tx** Schedl 1962k: 1051–1052, 1979c: 20.

attenuatus (Eggers) 1935c: 306 (*Stephanoderes*). Holotype ♀; Congostaat (Stanleyville); USNM, Washington [2 cotypes in NHMW, Wien].

Distribution: Africa (Sierra Leone/ Uganda/ Zaire).

Hosts: *Bauhinia tomentosa*, *Cola acuminata*, *C. nitida*, *Spathodea campanulata*, *Theobroma cacao*.

References: **cn** Schmitz & Crisinel 1957: 12. **hb** Hargreaves 1937: 509; Pujol 1957: 245; Schedl 1961k: 535; Schmitz & Crisinel 1957: 12. **ds** Schedl 1961k: 535. **tx** Anderson, W. H. & Anderson 1971: 5; Eggers 1935c: 306–307; Schedl 1950d: 3, 17–18, 1952: 535, 1961k: 535, 1979c: 31.

ciliatipennis Schedl 1979f: 105. Holotype, sex?: Fiji; published as Schedl Collection in NHMW, Wien, actually in BPBM, Honolulu.

Distribution: Fiji Islands.

References: **tx** Schedl 1979f: 105.

congonus Eggers 1940b: 102. Holotype, sex?: Congostaat (Kivu: Lacs Mokoto); MRCB, Tervuren. Figures: Schedl 1961k: 536.

Distribution: Africa (Cameroon/Tanzania/Zaire).

Hosts: *Guaria laurentii*.

References: **hb** Schedl 1961k: 536. **ds** Gardner 1957a: 31; Schedl 1961k: 536, 1965g: 19. **tx** Eggers 1940b: 102–103; Schedl 1939i: 351, 1950d: 6–7, 1961k: 536, 1979c: 63.

convexus (Schedl) 1962k: 1052 (*Afromicracis*). Holotype, sex?: Natal; Schedl Collection in NHMW, Wien.

Distribution: Africa (Natal).

References: **tx** Schedl 1962k: 1052, 1979c: 65.

dubius Schedl 1950k: 21. Holotype, sex?: D. E. Afrika; Schedl Collection in NHMW, Wien.

Distribution: Africa (Tanzania).

References: **tx** Schedl 1950d: 21, 1951m: 96, 1961k: 535, 1979c: 55.

elongatus Schedl 1965e: 366. Holotype, sex?; Sudafrika, Pt. St. John; Schedl Collection in NHMW, Wien.

Distribution: Africa (South Africa).

References: (tx) Schedl 1965e: 366, 1979c: 89.

grobleri Schedl 1961j: 349. Holotype, sex?; Cape Province, Grootvadersbosch; NACP, Pretoria.

Distribution: Africa (South Africa).

References: (cn) Anonymous 1970c: 13. (ds)

Anonymous 1970c: 13; Schedl 1961j: 349, 1969d:

5. (tx) Schedl 1961j: 349, 1979c: 113.

kenyaensis (Schedl) 1959q: 709 (*Afromicracis*). Holotype, sex?; Kenya, Kampi ya Moto; BMNH, London.

Distribution: Africa (Kenya).

References: (ds) Schedl 1959q: 705, 709. (tx)

Schedl 1959q: 709, 1962j: 37, 1979c: 132.

klainedoxae Schedl 1957d: 52. Holotype, sex?; Congo Belge; Yangambi; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Klainedoxa gabonensis* var. *oblongifolia*.

References: (hb) Schedl 1961k: 540. (ds) Schedl

1961k: 540. (tx) Schedl 1957d: 52, 1961k: 540,

1979c: 133.

longus Nunberg 1964b: 434. Holotype, sex?; Abyssinien, Maraquo; NHMB, Budapest.

Figures: Nunberg 1964: 434.

Distribution: Africa (Ethiopia).

References: (tx) Nunberg 1964b: 434.

natalensis (Eggers) 1936b: 36 (*Stephanoderes*). Holotype, sex?; Natal, Estcourt, 4000 ft.; BMNH, London.

Distribution: Africa (Natal in South Africa).

References: (tx) Eggers 1936b: 36, 1940b: 102;

Schedl 1939i: 381–382, 1961k: 540, 1979c: 163.

nigrinus Schedl 1957d: 53. Holotype, sex?; Congo Belge; Kabali-Ituri, Irumu; MRCB, Tervuren.

Figures: Schedl 1961k: 541.

Distribution: Africa (Zaire).

Hosts: Liana.

References: (hb) Schedl 1961k: 541. (tx) Schedl

1957d: 53, 1961k: 540–541, 1979c: 167.

nitidus (Schedl) 1965g: 26 (*Eidophelus*). Holotype, sex?; Congo (Yangambi); Schedl Collection in NHMW, Wien.

Distribution: Africa (Zaire).

Hosts: *Randia congolana*.

References: (tx) Schedl 1965g: 26, 1979c: 170.

pennatus Schedl 1953d: 79. Lectotype ♂; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 187.

Distribution: Madagascar.

References: (tx) Schedl 1953d: 79, 1977b: 57,

1979c: 187.

punctipennis Schedl 1965e: 367. Holotype, sex?; Ost-Afrika; Schedl Collection in NHMW, Wien.

Distribution: Africa (Tanzania).

References: (tx) Schedl 1965e: 367, 1979c: 205.

Genus *Pseudothysanoes* Blackman

PSEUDOTHYSANOES BLACKMAN 1920a: 46. Type-species: *Pseudothysanoes drakei* Blackman = *Cryphalus rigidus* LeConte, original designation.

Cryptocleptes Blackman 1920a: 51. Type-species: *Cryptocleptes dislocatus* Blackman, original designation, preoccupied by Simon 1884. Synonymy: Wood 1972c: 141.

References: (tx) Beal & Massey 1945: 59;

Blackman 1920a: 51, 1922b: 73–74, 1928a:

186, 1943a: 359; Chamberlin 1939: 271; Schedl

1959m: 545–557; Wood, S. L. 1967d: 76,

1972c: 141.

Chalcohyus Blackman 1943a: 363. Type-species:

Chalcohyus securigerus Blackman, original designation. Synonymy: Wood 1972c: 141.

References: (tx) Blackman 1943a: 363; Wood,

S. L. 1972c: 141.

Bostrichips Schedl 1951d: 21. Type-species: *Bostrichips spinatus* Schedl, monobasic. Synonymy: Wood 1984b: 227.

References: (tx) Schedl 1951d: 21, 1958f: 33–

46; Wood, S. L. 1984b: 227.

Gretschkinia Sokanovskii 1959: 276. Type-species: *Gretschkinia mongolica* Sokanovskii, monobasic. Synonymy: Wood 1984b: 227.

References: (tx) Schedl 1962p: 204; Sokanov-

skii 1959: 276; Wood, S. L. 1984b: 227.

Aphanocleptus Wood 1960b: 63. Type-species: *Aphanocleptus conferae* Wood, original designation. Synonymy: Wood 1982b: 510.

References: (tx) Wood, S. L. 1960b: 63,

1982b: 510.

Cryptulocleptus Wood 1967d: 76. Type-species: *Cryptocleptes dislocatus* Blackman, automatic. Synonymy: Wood 1972c: 141.

References: (tx) Wood, S. L. 1967d: 76, 1972c:

141.

Neoglostatus Schedl 1978e: 300. Type-species: *Neoglostatus squamosus* Schedl, monobasic. Synonymy: Wood 1984b: 227.

References: (tx) Schedl 1978e: 300; Wood,

S. L. 1984b: 227.

Keys: Wood 1982b: 511–519.

References: (hb) Wood, S. L. 1986a: 63. (ds)

Wood, S. L. 1986a: 63. (tx) Beal & Massey 1945:

59, 100; Blackman 1920a: 1–62, 1921: 6–7, 47,

1922b: 65, 73, 1928a: 186, 199–200, 1943a: 355;

Bright & Stark 1973: 63; Bruck 1936b: 30; Chamber-

lin 1939: 266–271; Wood, S. L. 1956b: 239, 1967d:

37–57, 1972c: 141, 1982b: 510–555, 1986a: 63.

abbreviatus (Schedl) 1954b: 26 (*Cryptocleptes*). Lectotype ♂; Brasilien: Parana, Rondon, 500 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 8.

Distribution: South America (Brazil).

References: (ds) Schedl 1966f: 86, 1970e: 82. (tx)

de Ruette 1970: 100; Schedl 1954b: 26, 1979c: 8.

- acaciae (Blackman)** 1943a: 362 (*Cryptocleptes*). Holotype ♀; Brownsville, Texas [USA]; USNM, Washington.
Distribution: North America (Tamaulipas in Mexico/ S Texas in USA).
Hosts: *Mimosa* sp.
References: (**hb**) Wood, S. L. 1982b: 550. (**ds**) Blackwelder & Blackwelder 1948; Wood, S. L. 1982b: 550. (**tx**) Blackman 1943a: 362; Wood, S. L. 1956b: 238, 1982b: 550.
- acacicolens Wood** 1969b: 23. Holotype ♂; Playa del Coco, Guanacaste, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: *Acacia* sp.
References: (**hb**) Wood, S. L. 1982b: 545. (**ds**) Wood, S. L. 1982b: 545. (**tx**) Wood, S. L. 1969b: 23, 1982b: 545.
- acares (Wood)** 1969b: 32 (*Cryptulocleptes*). Holotype ♂; 30 km SE El Cameron, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Jalisco, Oaxaca in Mexico).
Hosts: Leguminous tree branches.
References: (**ec**) Equihua & Atkinson 1986: 628. (**hb**) Equihua & Atkinson 1986: 628; Wood, S. L. 1982b: 551. (**ds**) Equihua & Atkinson 1986: 628; Wood, S. L. 1982b: 551. (**tx**) Wood, S. L. 1969b: 32, 1982b: 551.
- amassius Wood** 1969b: 25. Holotype ♂; 20 km S Matias Romero, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Oaxaca in Mexico).
Hosts: *Phoradendron* sp.
References: (**ds**) Wood, S. L. 1982b: 532. (**tx**) Wood, S. L. 1969b: 25, 1982b: 532.
- aquilus (Wood)** 1969b: 32 (*Cryptulocleptes*). Holotype ♂; 26 km E Morelia, Michoacan, Mexico; Wood Collection.
Distribution: North America (Michoacan in Mexico).
Hosts: *Acacia* sp.
References: (**hb**) Atkinson et al. 1986: 29; Wood, S. L. 1982b: 552. (**ds**) Atkinson & Equihua 1985a: 82; Atkinson et al. 1986: 29; Wood, S. L. 1969b: 32, 1982b: 552. (**tx**) Wood, S. L. 1969b: 32, 1982b: 552.
- arbuti (Wood)** 1969b: 30 (*Cryptulocleptes*). Holotype ♂; 13 km W Texmelucan, Puebla, Mexico; Wood Collection.
Distribution: North America (Puebla in Mexico).
Hosts: *Arbutus* sp.
References: (**hb**) Atkinson & Equihua 1985a: 82; Atkinson et al. 1986: 30; Burgos & Saucedo 1983: 84; Wood, S. L. 1982b: 541. (**ds**) Atkinson & Equihua 1985a: 82; Atkinson et al. 1986: 30; Burgos & Saucedo 1983: 84; Wood, S. L. 1982b: 541. (**tx**) Wood, S. L. 1969b: 30, 1982b: 541.
- argentiniae (Schedl)** 1958f: 43 (*Bostrichips*). Lectotype, sex?; Argentinien: Cordoba, Dep. Punilla; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 25.
Distribution: South America (Argentina).
References: (**ds**) Schedl 1979c: 58. (**tx**) Schedl 1958f: 43, 1979c: 25; Wood, S. L. 1969d: 23–24.
- atomus Wood** 1980b: 355. Holotype ♂; Finca Monasterios, Cancagua, Miranda, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Theobroma cacao*.
References: (**tx**) Wood, S. L. 1980b: 355.
- bartoni Bruck** 1936b: 32. Holotype ♂; Saddle Peak, Santa Monica Mts., California [USA]; OSUC, Columbus.
Distribution: North America (S California in USA).
Hosts: *Sphaeracula fasciculata*.
References: (**ec**) Bright 1976a. (**hb**) Bright & Stark 1973: 63; Chamberlin 1939: 270. (**ds**) Blackwelder 1939; Bright & Stark 1973: 63; Chamberlin 1939: 270; Wood, S. L. 1982b: 554. (**tx**) Bruck 1936b: 32; Chamberlin 1939: 270; Wood, S. L. 1957d: 109, 1982b: 544.
- bellus (Schedl)** 1954b: 28 (*Cryptocleptes*). Lectotype ♂; Brasilien: Parana, Rondon, 500 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 36.
Distribution: South America (Brazil).
References: (**ds**) Schedl 1966f: 86, 1970e: 82. (**tx**) Schedl 1954b: 28, 1979c: 36.
- brumens Wood** 1971: 72. Holotype ♂; Miller Canyon, Huachuca Mts., Arizona [USA]; Wood Collection.
Distribution: North America (Chihuahua in Mexico/ Arizona in USA).
Hosts: *Quercus* sp.
References: (**hb**) Wood, S. L. 1982b: 524. (**ds**) Wood, S. L. 1982b: 524. (**tx**) Wood, S. L. 1971: 72, 1982b: 524.
- bullatus Wood** 1969b: 28. Holotype ♂; 42 km SE Nochistlan, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Oaxaca in Mexico).
Hosts: *Phoradendron* sp.
References: (**hb**) Wood, S. L. 1982b: 531. (**ds**) Wood, S. L. 1982b: 531. (**tx**) Wood, S. L. 1969b: 28–29, 1982b: 531.
- caritus (Wood)** 1969b: 30 (*Cryptulocleptes*). Holotype ♂; Cerro Punta, Chiriqui, Panama; Wood Collection.
Distribution: North America (Panama).
Hosts: Tree branches.
References: (**hb**) Wood, S. L. 1982b: 542. (**ds**) Wood, S. L. 1982b: 542. (**tx**) Wood, S. L. 1969b: 30–31, 1982b: 542.
- colombianus (Blackman)** 1943a: 361 (*Cryptocleptes*). Holotype ♂; San Vicente, Santander, Colombia; USNM, Washington.

Distribution: South America (Colombia).

References: **(tx)** Blackman 1943a: 361; Wood, S. L. 1969b: 33.

concentralis Wood 1975a: 27. Holotype ♀; 10 km SE Totolapan, Oaxaca, Mexico; Wood Collection. Distribution: North America (Oaxaca in Mexico). Hosts: (?) *Cassia* sp.

References: **(ds)** Wood, S. L. 1982b: 523. **(tx)** Wood, S. L. 1975a: 27, 1982b: 523.

coniferae (Wood) 1960b: 64 (*Aphanocleptes*). Holotype ♀; 30 km W La Laja, Chihuahua, Mexico; Wood Collection.

Distribution: North America (Chihuahua, Nuevo Leon in Mexico).

Hosts: *Picea chihuahuana*, *Pseudotsuga taxifolia*. References: **(hb)** Wood, S. L. 1960b: 64, 1982b: 521. **(ds)** Atkinson & Equihua 1988: 100; Wood, S. L. 1982b: 521. **(tx)** Wood, S. L. 1960b: 64, 1982b: 521.

contrarius Wood 1974a: 14. Holotype ♂; Lagos de Colores, Chiapas, Mexico; CNCI, Ottawa.

Distribution: North America (Chiapas in Mexico). Hosts: *Acacia pennatula*.

References: **(ds)** Wood, S. L. 1982b: 544. **(tx)** McNamara 1984: 758; Wood, S. L. 1974a: 14, 1982b: 544.

coracinus Wood 1969b: 29. Holotype ♂; 34 km N Juchitlan, Jalisco, Mexico; Wood Collection.

Distribution: North America (Jalisco in Mexico). References: **(hb)** Wood, S. L. 1982b: 539. **(ds)** Wood, S. L. 1982b: 539. **(tx)** Wood, S. L. 1969b: 29, 1982b: 539.

costatus Wood 1956b: 236. Holotype ♂; Madera Canyon, Santa Rita Mts., Arizona [USA]; SMUK, Lawrence.

Distribution: North America (Arizona in USA).

Hosts: *Quercus* sp. References: **(hb)** Wood, S. L. 1982b: 547. **(ds)** Wood, S. L. 1982b: 547. **(tx)** Wood, S. L. 1956b: 236, 1982b: 547.

crassinus Wood 1969b: 29. Holotype ♂; 24 km W Tehuantepec, Oaxaca, Mexico; Wood Collection. Distribution: North America (Oaxaca in Mexico). Hosts: Leguminous tree.

References: **(hb)** Wood, S. L. 1982b: 542. **(ds)** Wood, S. L. 1982b: 542. **(tx)** Wood, S. L. 1969b: 29, 1982b: 542.

cuspidis Wood 1971: 22. Holotype ♀; 10 km NE Teziutlan, Puebla, Mexico, 1600 m; Wood Collection.

Distribution: North America (Puebla in Mexico). Hosts: Tree branch.

References: **(tx)** Wood, S. L. 1971: 22, 1982b: 536.

dimorphus (Schedl) 1954b: 25 (*Cryptocleptes*). Lectotype ♂; Brasilien: Parana, Rondon, 500 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 81.

Distribution: South America (Brazil).

References: **(ds)** Schedl 1966g: 86, 1970e: 82. **(tx)** Schedl 1951h: 254, 1954b: 25, 1957d: 70, 1979c: 81.

dislocatus (Blackman) 1920a: 51 (*Cryptocleptes*). Lectotype ♀; Agricultural College [Starkville], Mississippi [USA]; USNM, Washington, designated by Wood 1982b: 553.

Distribution: Antilles Islands (Virgin Islands), North America (Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas, West Virginia in USA).

Hosts: *Carya* spp.

References: **(cn)** Blackman 1950. **(hb)** Baker, W. L. 1972: 253; Beal & Massey 1945: 100; Blackman 1922b: 74–75, 1950; Chamberlin 1939: 271; Drooz 1985: 357; Wood, S. L. 1982b: 553. **(ds)** Atkinson et al. 1991: 158; Beal & Massey 1945: 100; Blackman 1922b: 74–75, 1950; Bright 1985c: 172; Chamberlin 1939: 271; Deyrup 1981b: 5; Drooz 1985: 357; Kleine 1934a: 165; Leng & Mutchler 1927: 52; Wood, S. L. 1982b: 553. **(tx)** Beal & Massey 1945: 100; Blackman 1920a: 51, 1922b: 74–75, 1928a: 207, 1943a: 359; Bright 1985c: 172; Chamberlin 1939: 271; de Ruelle 1970: 100; Schedl 1979c: 82; Wood, S. L. 1956b: 238, 1962: 76, 1982b: 553.

excavatus (Wood) 1969b: 33 (*Cryptocleptes*).

Holotype ♂; 30 km SE El Cameron, Oaxaca, Mexico; Wood Collection.

Distribution: North America (Oaxaca in Mexico).

Hosts: *Gossypium* sp.

References: **(hb)** Wood, S. L. 1982b: 520. **(ds)** Wood, S. L. 1982b: 520. **(tx)** Wood, S. L. 1969b: 33, 1982b: 520.

fibriatus Wood 1982a: 229. Holotype ♀; Zacapoaxtla, Puebla, Mexico, 2150 m; Wood Collection.

Distribution: North America (Puebla in Mexico).

Hosts: *Phoradendron* sp.

References: **(hb)** Atkinson & Equihua 1985b: 233. **(ds)** Atkinson & Equihua 1985b: 233. **(tx)** Wood, S. L. 1982a: 229, 1982b: 543.

frondicolens Wood 1971: 73. Holotype ♂; Herb Martyr Campground, Chiricahua Mts., Arizona [USA]; Wood Collection.

Distribution: North America (S Arizona in USA).

Hosts: *Yucca* sp. leaves.

References: **(hb)** Wood, S. L. 1982b: 543. **(ds)** Wood, S. L. 1982b: 543. **(tx)** McNamara 1977: 199; Wood, S. L. 1971: 73, 1982b: 543.

funbris Wood 1969b: 27. Holotype ♂; 27 km W Durango, Durango, Mexico; Wood Collection.

Distribution: North America (Coahuila, Durango in Mexico).

Hosts: *Phoradendron boleanum*.

References: **(hb)** Wood, S. L. 1982b: 530. **(ds)** Atkinson & Equihua 1988: 100; Wood, S. L. 1982b: 530. **(tx)** Wood, S. L. 1969b: 27–28, 1982b: 530.

- funereus** Wood 1971: 21. Holotype ♂; Volcan Colima, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: *Phoradendron longifolium*.
References: (hb) Wood, S. L. 1982b: 530. (ds) Wood, S. L. 1982b: 530. (tx) Wood, S. L. 1971: 21, 1982b: 530.
- furvus** Wood 1969b: 26. Holotype ♂; 35 km N Juchitlan, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: *Phoradendron* sp.
References: (hb) Atkinson & Equihua 1985b: 233. (ds) Atkinson & Equihua 1985b: 233; Wood, S. L. 1982b: 528. (tx) Wood, S. L. 1969b: 26–27, 1982b: 528.
- furvescens** Wood 1971: 21. Holotype ♂; 18 km N Huajuapán, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Oaxaca in Mexico).
Hosts: *Phoradendron* sp.
References: (hb) Wood, S. L. 1982b: 527. (ds) Atkinson et al. 1986: 60; Wood, S. L. 1982b: 527. (tx) Wood, S. L. 1971: 21, 1982b: 527.
- furus** Wood 1969b: 26. Holotype ♂; Canas, Guanacaste, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica/Honduras).
Hosts: *Phoradendron robustissimum*.
References: (hb) Atkinson et al. 1986: 30; Burgos & Saucedo 1983: 85; Wood, S. L. 1982b: 528. (ds) Atkinson & Equihua 1988: 100; Atkinson et al. 1986: 30, 60; Burgos & Saucedo 1983: 85; Wood, S. L. 1982b: 528. (tx) Wood, S. L. 1969b: 26, 1982b: 528.
- graniticus** Wood 1971: 21. Holotype ♀; 43 km SE Nochistlan, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Oaxaca in Mexico).
Hosts: *Phoradendron* sp.
References: (hb) Wood, S. L. 1982b: 534. (ds) Wood, S. L. 1982b: 534. (tx) Wood, S. L. 1971: 21–22, 1982b: 534.
- guevinae** (Schedl) 1966e: 45 (*Bostrichips*). Holotype ♀; Sudehile, Termas Manzanar; Schedl Collection in NHMW, Wien.
Distribution: South America (Chile).
Hosts: *Guevinia avellana*.
References: (tx) Schedl 1966e: 45, 1979c: 114.
- heliura** Wood 1956b: 237. Holotype ♂; Luling, Texas [USA]; SMUK, Lawrence.
Distribution: North America (S Texas in USA).
Hosts: *Condalia obtusifolia*.
References: (hb) Wood, S. L. 1982b: 548. (ds) Wood, S. L. 1982b: 548, 1956b: 237. (tx) Wood, S. L. 1956b: 237, 1959a: 58, 1969b: 24, 1982b: 548.
- hopkinsi** Blackman 1928a: 200. Holotype ♂; Piru Ck., Ventura Co., California [USA]; USNM, Washington.
Distribution: North America (S California in USA).
Hosts: *Fremontia californica*.
References: (cn) Doane et al. 1936. (cc) Bushing & Bright 1965: 203. (hb) Bright & Stark 1973: 63; Chamberlin 1939: 269; Doane et al. 1936. (ds) Blackwelder 1939; Bright & Stark 1973: 63; Chamberlin 1939: 269; Furniss, R. L. & Carolin 1977: 383; Keen 1929a: 26; Kleine 1934a: 166; Leng & Mutchler 1933: 53; Wood, S. L. 1982b: 540. (tx) Blackman 1928a: 200–201; Bruck 1936b: 31; Chamberlin 1939: 269; Wood, S. L. 1969b: 29.
- huachucae** Blackman 1943a: 355. Holotype ♂; Huachuca Mts., Arizona [USA]; USNM, Washington, lost.
Figures: Blackman 1943a: fig. 15.
Distribution: North America (Chihuahua in Mexico/ Arizona in USA).
References: (ds) Blackwelder & Blackwelder 1948; Wood, S. L. 1960: 65, 1982b: 554. (tx) Blackman 1943a: 355; McNamara 1984: 758; Wood, S. L. 1960b: 65, 1982b: 554.
- insularis** (Blackman) 1943a: 359 (*Cryptocleptes*). Holotype ♀; Cayamas, Cuba; USNM, Washington.
Figures: Blackman 1943a: figs. 16–17.
Distribution: Antilles Islands (Cuba).
References: (ds) Bright 1985c: 172. (tx) Blackman 1943a: 359; Bright 1985c: 172.
- lecontei** Blackman 1920a: 49. Holotype ♂; Washington, D. C. [USA]; MCZ, Cambridge.
Distribution: North America (District of Columbia, Georgia, Maryland, New Jersey, New York, North Carolina, Pennsylvania, Virginia, West Virginia in USA).
Hosts: *Castanea dentata*, *Celtis* sp., *Juglans nigra*, *Ostrya virginica*, *Quercus* spp.
References: (cn) Blackman 1950; Doane et al. 1936. (hb) Baker, W. L. 1972: 253; Beal & Massey 1945: 101; Blackman 1950; Chamberlin 1939: 269; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Wood, S. L. 1982b: 527. (ds) Atkinson et al. 1991: 158; Beal & Massey 1945: 101; Blackman 1950; Blackwelder 1939; Chamberlin 1939: 269; Deyrup 1981b: 5; Deyrup & Atkinson 1987a: 65; Drooz 1985: 356; Kirk 1970; Kleine 1934a: 166; Leng & Mutchler 1927: 52; Wood, S. L. 1982b: 527. (tx) Beal & Massey 1945: 101; Blackman 1920a: 46–50, 1928a: 200–203; Bruck 1936b: 31; Chamberlin 1939: 269; Wood, S. L. 1969d: 24, 1982b: 527.
- leechi** Wood 1980b: 356. Holotype ♂; 3 km NNE Angwin, Napa Co., California [USA]; CAS, San Francisco.
Distribution: North America (California in USA).
Hosts: *Phoradendron flavescens* var. *villosum*.
References: (ds) Wood, S. L. 1982b: 529. (tx) Wood, S. L. 1980b: 356, 1982b: 529.
- mancus** Wood 1969b: 24. Holotype ♂; 3 km E Armeria, Colima, Mexico; Wood Collection.
Distribution: North America (Colima in Mexico).
References: (hb) Wood, S. L. 1982b: 549. (ds)

- Atkinson & Equihua 1988: 100; Wood, S. L. 1982b: 549. (**tx**) Wood, S. L. 1969b: 24–25, 1982b: 549.
- mandibularis** Wood 1984: 118. Holotype ♂; Estacion de Biologia, Chamela, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
References: (**ec**) Equihua & Atkinson 1986: 628. (**hb**) Equihua & Atkinson 1986: 628. (**ds**) Equihua & Atkinson 1986: 628. (**tx**) Wood, S. L. 1984: 118.
- mendicus** (Wood) 1969b: 31 (*Cryptulocleptes*). Holotype ♂; 11 km S Colima, Colima, Mexico; Wood Collection.
Distribution: North America (Colima in Mexico).
Hosts: Leguminous tree.
References: (**ec**) Equihua & Atkinson 1986: 628. (**hb**) Equihua & Atkinson 1986: 628; Wood, S. L. 1982b: 554. (**ds**) Equihua & Atkinson 1986: 628; Wood, S. L. 1982b: 554. (**tx**) Wood, S. L. 1969b: 31–32, 1982b: 554.
- minor** (Blackman) 1928a: 207 (*Cryptocleptes*). Holotype ♀; Cayamas, Cuba; USNM, Washington.
Distribution: Antilles Islands (Cuba).
References: (**ds**) Blackwelder 1947: 784; Bright 1985c: 172. (**tx**) Blackman 1928a: 207–208, 1943a: 359; Bright 1985c: 172.
- minulus** (Wood) 1956b: 238 (*Cryptocleptes*). Holotype ♀; 10 km W Zanatepec, Oaxaca, Mexico; SMUK, Lawrence.
Distribution: North America (Oaxaca in Mexico).
Hosts: Malvaceae tree.
References: (**hb**) Wood, S. L. 1982b: 550. (**ds**) Wood, S. L. 1982b: 550. (**tx**) de Ruette 1970: 100; Wood, S. L. 1956b: 238, 1982b: 550.
- mirus** (Wood) 1969b: 32 (*Cryptulocleptes*). Holotype ♂; 38 km S Matias Romero, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Oaxaca in USA).
Hosts: Shrub.
References: (**hb**) Wood, S. L. 1982b: 552. (**ds**) Wood, S. L. 1982b: 552. (**tx**) Wood, S. L. 1969b: 32, 1982b: 552.
- mongolica** (Sokanovskii) 1959a: 277 (*Gretschkinia*). Syntypes, sex²; Mongolia, pres de la frontiere de l'USSR; Sokanovskii Collection, not located.
Distribution: Asia (Gansu, Hebei, Liaoning, Shanxi in China/Mongolia).
Hosts: *Ulmus pumila*.
References: (**ds**) Yanovskii & Tegshzhargal 1985: 409. (**tx**) Michalski 1969b: 568; Schedl 1962p: 204, 1979c: 158; Sokanovskii 1959a: 277.
- mucronatus** (Wood) 1969b: 34 (*Cryptulocleptes*). Holotype ♂; La Lima, Cortez, Honduras; Wood Collection.
Distribution: North America (Honduras).
Hosts: Liana.
- References: (**hb**) Wood, S. L. 1982b: 536. (**ds**) Wood, S. L. 1982b: 536. (**tx**) Wood, S. L. 1969b: 34–35, 1982b: 536.
- multispinatus** Wood 1957b: 109. Holotype ♂; Gainesville, Florida [USA]; USNM, Washington.
Distribution: North America (Florida in USA).
Hosts: *Tilia cienserrata*.
References: (**ds**) Wood, S. L. 1982b: 545. (**tx**) Wood, S. L. 1957d: 109, 1982b: 545.
- murilloi** (Blackman) 1943a: 360 (*Cryptocleptes*). Holotype ♀; San Vicente, Sant., Colombia, 692 m; USNM, Washington.
Figures: Blackman 1943a: fig. 21.
Distribution: South America (Colombia).
Hosts: *Albizia macrocarpa*.
References: (**tx**) Blackman 1943a: 360; Schedl 1979c: 162.
- obesus** (Wood) 1969b: 33 (*Cryptulocleptes*). Holotype ♂; 30 km SE El Cameron, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Oaxaca in Mexico).
Hosts: *Gossypium* sp.
References: (**hb**) Wood, S. L. 1982b: 522. (**ds**) Wood, S. L. 1982b: 522. (**tx**) Wood, S. L. 1969b: 33, 1982b: 522.
- peniculus** Wood 1969b: 28. Holotype ♂; 13 km W Texmelucan, Puebla, Mexico; Wood Collection.
Figures: Atkinson et al. 1986: 28.
Distribution: North America (Puebla in Mexico).
Hosts: *Phoradendron* sp.
References: (**hb**) Atkinson & Equihua 1985a: 81; Atkinson et al. 1986: 30; Burgos & Saucedo 1983: 82; Wood, S. L. 1982b: 532. (**ds**) Atkinson & Equihua 1985: 81; Atkinson et al. 1986: 30; Burgos & Saucedo 1983: 82; Wood, S. L. 1982b: 532. (**tx**) Atkinson et al. 1986: 28; Muskus 1984: 82; Wood, S. L. 1969b: 28, 1982b: 532.
- perseae** Wood 1981: 125. Holotype ♂; Cerro Chipinque, Monterrey, Nuevo Leon, Mexico; Wood Collection.
Distribution: North America (Nuevo Leon in Mexico).
Hosts: *Persea* sp.
References: (**hb**) Atkinson & Equihua 1985b: 233. (**ds**) Atkinson & Equihua 1985b: 233; Wood, S. L. 1982b: 553. (**tx**) Wood, S. L. 1981: 125, 1982b: 553.
- phoradendri** Blackman 1928a: 202. Holotype ♂; Victoria, Texas [USA]; USNM, Washington.
Distribution: North America (Chihuahua in Mexico/ S Arizona, S California, SW Texas in USA).
Hosts: *Phoradendron flavescens*.
References: (**hb**) Bright & Stark 1973: 64; Chamberlin 1939: 269; Wood, S. L. 1982b: 529. (**ds**) Atkinson 1989b: 336; Blackwelder 1939; Bright & Stark 1973: 64; Chamberlin 1939: 269; Furniss, R. L. & Carolin 1977: 383; Keen 1929a: 26; Kleine 1934a: 166; Leng & Mutchler 1933: 53;

- Wood, S. L. 1960b: 65, 1982b: 529. **(tx)** Atkinson 1989b: 336; Blackman 1928a: 202–203; Bright 1966b: 306; Bruck 1936b: 31; Chamberlin 1939: 269; Keen 1929a: 26; de Ruelle 1970: 113; Wood, S. L. 1960b: 65, 1969b: 25–26, 1982b: 529.
- pini Wood** 1982a: 229. Holotype ♀; Km 43 on Texcoco-Calpualpan highway, Mexico, Mexico; Wood Collection.
Distribution: North America (Mexico in Mexico).
Hosts: *Pinus hartwegii* x *P. montezumae*.
References: **(hb)** Atkinson & Equihua 1985a: 82. **(ds)** Atkinson & Equihua 1985a: 82. **(tx)** Wood, S. L. 1982a: 229.
- plaumanni (Schedl)** 1951m: 106 (*Cryptocleptes*). Syntypes, sex?; Brasilien, Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection.
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 196 (citation of holotype invalid).
References: **(tx)** Schedl 1951m: 106, 1954b: 25, 1959m: 549, 1979c: 196.
- plumalis Wood** 1969b: 29. Holotype ♂; 18 km N Huajuapán, Oaxaca, Mexico; Wood Collection.
Distribution: North America (Oaxaca in Mexico).
Hosts: *Psittacanthus* sp.
References: **(hb)** Wood, S. L. 1982b: 538. **(ds)** Wood, S. L. 1982b: 538. **(tx)** Wood, S. L. 1969b: 29, 1982b: 538.
- pumilus (Wood)** 1969b: 31 (*Cryptocleptes*). Holotype ♂; 53 km S Colima, Mexico; Wood Collection.
Distribution: North America (Colima in Mexico).
Hosts: Shrub.
References: **(ce)** Equihua & Atkinson 1986: 628. **(hb)** Equihua & Atkinson 1986: 628; Wood, S. L. 1982b: 555. **(ds)** Equihua & Atkinson 1986: 628; Wood, S. L. 1982b: 555. **(tx)** Wood, S. L. 1969b: 31, 1982b: 555.
- quercicolens Wood** 1956b: 235. Holotype ♂; 50 km SE El Salto, Durango, Mexico; SMUK, Lawrence.
Distribution: North America (Durango, Michoacán, Sinaloa in Mexico).
Hosts: *Quercus* sp.
References: **(hb)** Wood, S. L. 1982b: 526. **(ds)** Wood, S. L. 1982b: 526. **(tx)** Wood, S. L. 1956b: 235, 1982b: 526.
- quercinus (Wood)** 1969b: 30 (*Cryptocleptes*). Holotype ♂; 37 km W Durango, Durango, Mexico; Wood Collection.
Distribution: North America (Durango, Oaxaca in Mexico).
Hosts: *Quercus* sp.
References: **(hb)** Wood, S. L. 1982b: 522. **(ds)** Wood, S. L. 1982b: 522. **(tx)** Wood, S. L. 1969b: 30, 1982b: 522.
- querneus Wood** 1971: 20. Holotype ♂; 17 km E Pachuca, Hidalgo, Mexico; Wood Collection.
Distribution: North America (Hidalgo, Nuevo Leon, Queretaro, Vera Cruz in Mexico).
Hosts: *Quercus* spp.
References: **(hb)** Atkinson & Equihua 1985a: 81; Atkinson et al. 1986: 30; Burgos & Saucedo 1983: 82; Wood, S. L. 1982b: 521. **(ds)** Atkinson & Equihua 1985a: 81; Atkinson et al. 1986: 30; Burgos & Saucedo 1983: 82; Wood, S. L. 1971: 20–21, 1982b: 521. **(tx)** Wood, S. L. 1971: 20, 1982b: 521.
- recavus Wood** 1974a: 14. Holotype ♀; 8 km S Simojovel, Chiapas, Mexico; CNCI, Ottawa.
Distribution: North America (Chiapas in Mexico).
References: **(ds)** Wood, S. L. 1982b: 519. **(tx)** McNamara 1984: 758; Wood, S. L. 1974a: 14, 1982b: 519.
- rigidus (LeConte)** 1876: 362 (*Cryphalus*). Lectotype ♂; Canada; MCZ, Cambridge, designated by Wood 1982b: 541.
Figures: Blackman 1920a: figs. 35–36.
Distribution: North America (apparently Ontario in Canada/ E Kansas, Michigan, New York, Ohio, Pennsylvania in USA).
Hosts: *Tilia americana*.
Notes: (3) Blackman 1920a: 47 (redescribed), 1928a: 202 (redescribed).
References: **(cn)** Blackman 1950; Doane et al. 1936; Swaine 1918a: 82. **(hb)** Baker, W. L. 1972: 253; Blackman 1950; Bright 1976d: 103; Chamberlin 1939: 268; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Kirkendall 1984: 238; Swaine 1918a: 82; Wood, S. L. 1982b: 541. **(ds)** Blackman 1950; Blackwelder 1939; Blatchley & Leng 1916: 650; Bright 1976d: 103; Chamberlin 1939: 268; Deyrup 1981b: 5; Deyrup & Atkinson 1987a: 65; Drooz 1985: 356; Hagedorn 1910d: 45; Henshaw 1882: 269, 1885: 148; Hubbard & Schwarz 1878a: 666; Kleine 1913b: 119, 1914b: 409, 1934a: 166; Leng 1920: 339; Schwarz 1886: 42; Swaine 1909: 93; Ulke 1902: 56; Wood, S. L. 1982b: 541. **(tx)** Blackman 1920a: 36–37, 48–49, 1922b: 73, 1928a: 200–201, 1943a: 355, 1982a; Blatchley & Leng 1916: 650; Bright 1976d: 103; Bruck 1936b: 31; Chamberlin 1939: 268; Hagedorn 1910a: 87; LeConte 1876: 362; Schwarz 1886: 42; Sokanovskii 1959a: 277; Swaine 1909: 93, 1918a: 62–63, 82; Wood, S. L. 1967d: 402, 1982b: 541.
- drakei** Blackman 1920a: 48. Lectotype ♂; Syracuse, New York [USA]; USNM, Washington, designated by Wood 1982b: 541. Synonymy: Wood 1957c: 402.
References: **(cn)** Blackman 1950; Doane et al. 1936. **(hb)** Blackman 1950; Chamberlin 1939: 268; Doane et al. 1936. **(ds)** Anonymous 1926c: 517; Blackman 1950; Blackwelder 1939; Chamberlin 1939: 268; Leng & Mutchler 1927: 52; Leonard 1928: 517. **(tx)** Blackman 1920a: 48–49, 1928a: 200, 202; Bruck 1936b: 31; Chamberlin 1939: 268; Wood, S. L. 1957c: 402, 1982b: 541.

securigerus (Blackman) 1943a: 364 (*Chalcohyus*). Holotype ♀; Yauco, Puerto Rico; USNM, Washington.

Distribution: Antilles Islands (Haiti/ Puerto Rico), North America (Florida in USA).

Hosts: *Amyris balsamifera*.

References: (ds) Atkinson et al. 1991: 158; Bright 1985c: 172; Wolcott 1948: 384. (tx) Blackman 1943a: 364; Bright 1985c: 172; Schedl 1979c: 223; Wood, S. L. 1972b: 141.

securus Wood 1977b: 216. Holotype ♀; 8 km W Tulancingo, Hidalgo, Mexico; Wood Collection. Distribution: North America (Hidalgo in Mexico). Hosts: *Quercus* sp.

References: (ds) Wood, S. L. 1982b: 526. (tx) Wood, S. L. 1977b: 216, 1982b: 526.

sedulus Blackman 1928a: 204. Holotype ♂; Bear Canyon, Catalina Mts., Arizona [USA]; USNM, Washington.

Distribution: North America (Arizona, New Mexico, W Texas in USA).

Hosts: *Quercus emoryi*, *Q. gambelii*, *Q.* spp.

References: (cn) Doane et al. 1936. (hb) Chamberlin 1939: 269; Doane et al. 1936; Wood, S. L. 1982b: 525. (ds) Atkinson et al. 1991: 158; Blackwelder 1939; Chamberlin 1939: 269; Furniss, R. L. & Carolin 1977: 383; Keen 1929a: 26; Kleine 1934a: 166; Leng & Mutchler 1933: 53; Wood, S. L. 1982b: 525. (tx) Blackman 1928a: 204; Bruck 1936b: 31; Chamberlin 1939: 269; Keen 1929a: 26; Wood, S. L. 1956b: 235, 1971: 151, 1982b: 525.

gambetti Blackman 1928a: 205. Holotype ♂; Peloncillo Reserve, New Mexico [USA]; USNM, Washington. Synonymy: Wood 1972c: 151.

References: (cn) Doane et al. 1936. (hb) Chamberlin 1939: 270; Doane et al. 1936. (ds) Blackwelder 1939; Chamberlin 1939: 270; Keen 1929a: 26; Kleine 1934a: 166; Leng & Mutchler 1933: 53. (tx) Blackman 1928a: 205–208; Bruck 1936b: 32; Chamberlin 1939: 270; Keen 1929a: 26; McNamara 1984: 758; Wood, S. L. 1956b: 235, 1972c: 151.

barberi Blackman 1928a: 206. Holotype ♂; Williams, Arizona [USA]; USNM, Washington. Synonymy: Wood 1972c: 151.

References: (hb) Chamberlin 1939: 270. (ds) Blackwelder 1939; Chamberlin 1939: 270; Keen 1929a: 26; Kleine 1934a: 166; Leng & Mutchler 1933: 53. (tx) Blackman 1928a: 200, 206–207; Bruck 1936b: 32; Chamberlin 1939: 270; Keen 1929a: 26; de Ruette 1970: 113; Wood, S. L. 1956b: 235, 1972c: 151.

simplex Wood 1984e: 118. Holotype ♂; Estacion de Biologia, Chamela, Jalisco, Mexico; Wood Collection.

Distribution: North America (Jalisco in Mexico). References: (cc) Equihua & Atkinson 1987: 628. (hb) Equihua & Atkinson 1986: 628. (ds)

Equihua & Atkinson 1986: 628. (tx) Wood, S. L. 1984e: 118.

spicatus (Wood) 1969b: 33 (*Cryptulocleptus*). Holotype ♂; Cerro Punta, Chiriqui, Panama, 1800 m; Wood Collection.

Distribution: North America (Panama).

Hosts: Large log.

References: (hb) Wood, S. L. 1982b: 538. (ds) Wood, S. L. 1982b: 538. (tx) Wood, S. L. 1969b: 33–34, 1982b: 538.

spinatifer Wood 1988a: 32. Holotype ♂; 27 km W Tehuantepec, Oaxaca, Mexico; SMUK, Lawrence, automatic.

Distribution: North America (Oaxaca in Mexico).

Hosts: Leguminous tree limb.

References: (tx) Wood, S. L. 1988a: 32.

spinatus Wood 1956b: 154. Holotype ♂; 27 km W Tehuantepec, Oaxaca, Mexico; SMUK, Lawrence, preoccupied by Schedl 1951.

References: (cc) Equihua & Atkinson 1986: 628. (hb) Equihua & Atkinson 1986: 628; Wood, S. L. 1982b: 546. (ds) Equihua & Atkinson 1986: 628; Wood, S. L. 1982b: 546. (tx) Wood, S. L. 1956b: 154, 1957d: 109, 1969b: 23, 1982b: 546.

spinatus (Schedl) 1951d: 21 (*Bostrichips*). Syn-types, sex?; Chile; Schedl Collection in NHMW, Wien, and Museo Nacional de Historia Natural, Santiago.

Distribution: South America (Chile).

References: (ds) Schedl 1972d: 143. (tx) Schedl 1951d: 21, 1972d: 143, 1979c: 234.

spinura Wood 1959a: 58. Holotype ♂; Oak Creek Canyon, Arizona [USA]; Wood Collection.

Distribution: North America (Chihuahua in Mexico/ Arizona in USA).

Hosts: *Ceanothus integrerrimus*.

References: (cc) Bright 1976a. (hb) Wood, S. L. 1982b: 548. (ds) Wood, S. L. 1959a: 58, 1960b: 65, 1982b: 548. (tx) Wood, S. L. 1959a: 58, 1960b: 65, 1969b: 24, 1982b: 548.

squameus Wood 1984e: 118. Holotype ♂; Estacion de Biologia, Chamela, Jalisco, Mexico; Wood Collection.

Distribution: North America (Jalisco in Mexico).

Hosts: *Loucheocarpus* sp.

References: (cc) Equihua & Atkinson 1986: 628. (hb) Equihua & Atkinson 1986: 628. (ds) Equihua & Atkinson 1986: 628. (tx) Wood, S. L. 1984e: 118.

squamosus (Schedl) 1978c: 300 (*Neoglostatus*). Holotype, sex?; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1978c: 300.

subpilosus (Wood) 1956b: 238 (*Cryptocleptes*). Holotype ♀; 32 km E Tehuantepec, Oaxaca, Mexico; SMUK, Lawrence.

- Distribution: North America (Oaxaca in Mexico).
Hosts: *Celtis iguanae*.
References: **(hb)** Wood, S. L. 1982b: 551. **(ds)** Wood, S. L. 1982b: 551. **(tx)** de Ruelle 1970: 100; Wood, S. L. 1956b: 238, 1969b: 31, 1982b: 551.
- subulatus (Wood)** 1969b: 34 (*Cryptocleptes*).
Holotype ♂; Volcan Pacaya, Esquintla, Guatemala; Wood Collection.
Distribution: North America (Guatemala).
Hosts: *Eschweilera* sp.
References: **(hb)** Wood, S. L. 1982b: 537. **(ds)** Wood, S. L. 1982b: 537. **(tx)** Wood, S. L. 1969b: 34, 1982b: 537.
- tenellus Wood** 1971: 23. Holotype ♂; 33 km W Morelia, Michoacan, Mexico; Wood Collection.
Distribution: North America (Michoacan in Mexico).
Hosts: *Phoradendron* sp., *Psittacanthus* sp.
References: **(hb)** Atkinson et al. 1986: 31; Burgos & Saucedo 1983: 84; Wood, S. L. 1982b: 539. **(ds)** Atkinson & Equihua 1985b: 233; Atkinson et al. 1986: 31; Burgos & Saucedo 1983: 84; Wood, S. L. 1982b: 539. **(tx)** Wood, S. L. 1971: 23, 1982b: 539.
- thomasi Wood** 1967d: 38. Holotype ♂; Mazatlan, Sinaloa, Mexico; CNCI, Ottawa.
Distribution: North America (Jalisco, Sinaloa in Mexico).
Hosts: A small tree.
References: **(ce)** Equihua & Atkinson 1986: 629. **(hb)** Equihua & Atkinson 1986: 629; Wood, S. L. 1982b: 523. **(ds)** Equihua & Atkinson 1986: 629; Wood, S. L. 1982b: 523. **(tx)** de Ruelle 1970: 113; Wood, S. L. 1967d: 38, 1982b: 523.
- truncatus Wood** 1984e: 119. Holotype ♂; Playa Perula, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: *Randia* sp.
References: **(ce)** Equihua & Atkinson 1986: 629. **(hb)** Equihua & Atkinson 1986: 629. **(ds)** Equihua & Atkinson 1986: 629. **(tx)** Wood, S. L. 1984e: 119.
- tumidulus Wood** 1975a: 28. Holotype ♂; 129 km NE San Juan del Rio on Highway 120, Queretaro, Mexico; CNCI, Ottawa.
Distribution: North America (Queretaro in Mexico).
Hosts: Mistletoe on oak.
References: **(ds)** Wood, S. L. 1982b: 533. **(tx)** McNamara 1984: 758; Wood, S. L. 1975a: 28, 1982b: 533.
- turnbowi Wood** 1977b: 217. Holotype ♀; Bentsen-Rio Grande State Park, Hidalgo Co., Texas [USA]; Wood Collection.
Distribution: North America (W Texas in USA).
Hosts: *Prosopis glandulosa*.
References: **(ds)** Wood, S. L. 1982b: 520. **(tx)** Wood, S. L. 1977b: 217, 1982b: 520.
- unimodus (Schedl)** 1959m: 549 (*Cryptocleptes*).
Holotype ♂; Matto Grosso: Rio Caraguata; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: **(ds)** Schedl 1966f: 86. **(tx)** Schedl 1959m: 549, 1979c: 260.
- vallatus Wood** 1969b: 24. Holotype ♂; Volcan Colima, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: *Struthanthus venetus*.
References: **(hb)** Wood, S. L. 1982b: 525. **(ds)** Wood, S. L. 1982b: 525. **(tx)** Wood, S. L. 1969b: 24, 1982b: 525.
- verdicus Wood** 1969b: 27. Holotype ♂; 7 km N Tlaxco, Tlaxcala, Mexico; Wood Collection.
Distribution: North America (Oaxaca, Tlaxcala in Mexico).
Hosts: *Phoradendron* spp.
References: **(hb)** Wood, S. L. 1982b: 535. **(ds)** Wood, S. L. 1982b: 535. **(tx)** Wood, S. L. 1969b: 27, 1982b: 535.
- verticillus Wood** 1971: 22. Holotype ♂; 27 km N Ixmiquilpan, Hidalgo, Mexico; Wood Collection.
Distribution: North America (Hidalgo in Mexico).
Hosts: *Phoradendron* sp.
References: **(ds)** Wood, S. L. 1982b: 534. **(tx)** Wood, S. L. 1971: 22, 1982b: 534.
- vesculus Wood** 1969b: 24. Holotype ♂; 3 km W Armeria, Colima, Mexico; Wood Collection.
Distribution: North America (Colima, Jalisco in Mexico).
Hosts: *Randia* sp.
References: **(ce)** Equihua & Atkinson 1986: 629. **(hb)** Equihua & Atkinson 1986: 629; Wood, S. L. 1982b: 547. **(ds)** Equihua & Atkinson 1986: 629; Wood, S. L. 1982b: 547. **(tx)** Wood, S. L. 1969b: 24, 1982b: 547.
- viscicolens Wood** 1969b: 25. Holotype ♂; Zamorano, Morazan, Honduras; Wood Collection.
Distribution: North America (Honduras).
Hosts: *Phoradendron robustissimum*.
References: **(hb)** Wood, S. L. 1982b: 535. **(ds)** Wood, S. L. 1982b: 535. **(tx)** Wood, S. L. 1969b: 25–26, 1982b: 535.
- viscivorus Wood** 1969b: 25. Holotype ♂; Volcan Ceboruco, Nayarit, Mexico; Wood Collection.
Distribution: North America (Nayarit in Mexico).
Hosts: *Phoradendron* cf. *robinsonii*.
References: **(hb)** Wood, S. L. 1982b: 531. **(ds)** Wood, S. L. 1982b: 531. **(tx)** Wood, S. L. 1969b: 25, 1982b: 531.
- yuccae (Wood)** 1956b: 239 (*Cryptocleptes*). Holotype ♀; Tecanachalco, Puebla, Mexico; SMUK, Lawrence.
Distribution: North America (Puebla in Mexico).
Hosts: *Yucca* sp. leaves.
References: **(hb)** Wood, S. L. 1982b: 549. **(ds)**

Wood, S. L. 1982b: 549. (tx) Wood, S. L. 1956b: 239, 1982b: 549.

guccavorus Wood 1971: 23. Holotype ♂; 15 km W Durango, Durango, Mexico; Wood Collection. Distribution: North America (Durango in Mexico).

Hosts: *Yucca* sp. leaves.

References: (hb) Atkinson & Equihua 1985a: 81; Wood, S. L. 1982b: 540. (ds) Atkinson & Equihua 1985a: 81, 1985b: 233; Wood, S. L. 1982b: 540. (tx) Wood, S. L. 1971: 23–24, 1982b: 540.

Genus *Stenoclyptus* Blackman

STENOCLYPTUS BLACKMAN 1943a: 356. Type-species: *Stenoclyptus rhois* Blackman = *Pseudothysanoes sulcatus* Bruck, original designation.

Keys: Wood 1982b: 556.

References: (hb) Wood, S. L. 1986a: 65. (ds) Wood, S. L. 1986a: 65. (tx) Blackman 1943a: 356; Bright & Stark 1973: 62; Schedl 1953d: 86; Wood, S. L. 1956a: 147, 1956b: 239, 1982b: 556, 1986a: 65.

ruficollis Wood 1956b: 239. Holotype ♀; 20 km SE Matamoros, Puebla, Mexico; SMUK, Lawrence. Distribution: North America (Puebla in Mexico). Hosts: Twigs of a large tree.

References: (hb) Wood, S. L. 1982b: 556. (ds) Wood, S. L. 1982b: 556. (tx) de Ruelle 1970: 113; Wood, S. L. 1956b: 239, 1982b: 556.

sulcatus (Bruck) 1936b: 33 (*Pseudothysanoes*). Holotype ♂; Mt. Wilson, Los Angeles Co., California [USA]; OSUC, Columbus.

Figures: Blackman 1943a: figs. 9–10.

Distribution: North America (S California in USA).

Hosts: *Ceanothus integerrimus*, *Rhus laurina*.

Notes: (1) Wood 1956b: 240 (to *Stenoclyptus*).

References: (hb) Bright & Stark 1973: 63; Chamberlin 1939: 270; Wood, S. L. 1982b: 556. (ds) Blackwelder 1939; Bright & Stark 1973: 63; Wood, S. L. 1982b: 556. (tx) Bright 1966b: 305; Bruck 1936b: 33; Chamberlin 1939: 270; Wood, S. L. 1956b: 240, 1973c: 186, 1982b: 556.

rhois Blackman 1943a: 357. Holotype ♀; Orange, Orange Co., California [USA]; USNM, Washington. Synonymy: Wood 1973c: 186.

References: (ds) Blackwelder & Blackwelder 1948. (tx) Blackman 1943a: 357–358; Wood, S. L. 1973c: 186.

ceanothi Blackman 1943a: 358. Holotype ♀; Yosemite National Park, California [USA]; USNM, Washington. Synonymy: Bright 1966b: 305.

References: (ds) Blackwelder & Blackwelder 1948; Bright 1966b: 305. (tx) Blackman 1943a: 358; Bright 1966b: 305; Wood, S. L. 1973c: 186.

Genus *Saurotosis* Wood

SAUROTOCIS WOOD 1984b: 229. Type-species: *Micracidendron tomicoides* Schedl, original designation.

References: (hb) Wood, S. L. 1986a: 65. (ds) Wood, S. L. 1986a: 65. (tx) Wood, S. L. 1984b: 229, 1986a: 63, 65.

dispar (Schedl) 1961e: 142 (*Micracidendron*). Holotype ♂; Madagascar, Perinet and Betsatsaky; IRSM, Madagascar.

Distribution: Madagascar.

References: (tx) Schedl 1961e: 142, 1977b: 120, 1979c: 82.

tomicoides (Schedl) 1961e: 141 (*Micracidendron*). Holotype ♂; Madagascar, Perinet and Betsatsaky; IRSM, Madagascar.

Distribution: Madagascar.

References: (hb) Schedl 1977b: 120–121. (ds) Schedl 1977b: 120–121. (tx) Schedl 1961e: 141, 1977b: 121, 1979c: 253–254.

Genus *Thysanoes* LeConte

THYSANOES LECONTE 1876: 369. Type-species: *Thysanoes fimbriicornis* LeConte, monobasic.

Keys: Wood 1982b: 557.

References: (hb) Wood, S. L. 1986a: 65. (ds) Wood, S. L. 1986a: 65. (tx) Beal & Massey 1945: 59, 101; Blackman 1920a: 27, 1922b: 65, 71, 1925a: 136, 197, 1943a: 342, 351, 363; Chamberlin 1939: 262–265; LeConte 1876: 369; LeConte & Horn 1883: 519–520; Swaine 1909: 147, 1913: 44, 82; Wood, S. L. 1956a: 147, 1956b: 233, 239, 351–353, 1982b: 557–570, 1986a: 65.

adonis Wood 1969b: 36. Holotype ♀; 47 km W Quiroga, Michoacan, Mexico; Wood Collection. Distribution: North America (Michoacan).

Hosts: *Quercus* sp.

References: (ds) Wood, S. L. 1982b: 556. (tx) Wood, S. L. 1969b: 36, 1982b: 556.

berbericolens Wood 1971: 73. Holotype ♀; Nogal Lake, Lincoln Co., New Mexico [USA]; Wood Collection.

Distribution: North America (New Mexico in USA). Hosts: *Berberis fremontii*.

References: (ds) Wood, S. L. 1982b: 561. (tx) Wood, S. L. 1971: 73, 1982b: 561.

berchemiae Blackman 1920a: 44. Lectotype ♀; Vicksburg, Mississippi [USA]; USNM, Washington, designated by Wood 1982b: 561.

Figures: Blackman 1920a: figs. 26, 29.

Distribution: North America (Florida, Louisiana, Mississippi, Texas, Virginia in USA).

Hosts: *Berchemia scandens*, *Quercus* sp., *Ulmus* sp. Notes: (1) Blackman 1922b: 73 (lapsus calami corrected in original spelling from *berschemiae*).

References: (cn) Blackman 1950; Doane et al. 1936. (hb) Baker, W. L. 1972: 253; Blackman 1950; Chamberlin 1939: 265; Doane et al. 1936; Kirken-

- dall 1984: 238. (**ds**) Blackman 1950; Chamberlin 1939: 265; Hoffmann 1942: 12; Kleine 1934a: 166; Leng & Mutchler 1927: 52; Wood, S. L. 1982b: 561. (**tx**) Blackman 1920a: 44, 1922b: 71, 73, 1928a: 197, 199, 1943a: 352; Chamberlin 1939: 265; de Ruelle 1970: 114; Wood, S. L. 1956b: 234, 1982b: 561.
- epicaris Wood** 1969b: 35. Holotype ♀; 39 km S Mazamitla, Jalisco, Mexico; Wood Collection. Distribution: North America (Jalisco in Mexico). Hosts: Leguminous tree. References: (**cc**) Equihua & Atkinson 1986: 629. (**hb**) Equihua & Atkinson 1986: 629; Wood, S. L. 1982b: 563. (**ds**) Equihua & Atkinson 1986: 629; Wood, S. L. 1982b: 563. (**tx**) Wood, S. L. 1969b: 35, 1982b: 563.
- fimbricornis LeConte** 1876: 370. Lectotype ♀; Lancaster Co., Pennsylvania [USA]; MCZ, Cambridge, designated by Wood 1982b: 564. Figures: Blackman 1920a: figs. 23–24, 27. Distribution: North America (Durango, Hidalgo, Tamaulipas, Veracruz in Mexico/ District of Columbia, Florida, Illinois, Maryland, Mississippi, New Jersey, North Carolina, Pennsylvania, Texas, Virginia, West Virginia in USA). Hosts: *Acacia* sp., *Acer rubrum*, *Carya* sp., *Celtis* sp., *Gleditsia triacanthos*, *Morus alba*, *Quercus* sp. Notes: (3) Blackman 1920a: 42 (redescribed). References: (**bv**) Turnbow & Franklin 1980. (**cn**) Blackman 1950; Doane et al. 1936; Packard 1890: 293; Swaine 1918a: 83. (**ec**) Burks 1979: 781; Bushing 1965: 468. (**hb**) Baker, W. L. 1972: 253; Beal & Massey 1945: 101–102; Blackman 1922b, 1950; Bright 1976d: 104; Chamberlin 1939: 264; Chittenden 1890; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Felt 1906: 716; Kirkendall 1984: 238; Packard 1890: 293; Riley 1891a: 130; Swaine 1918a: 83. (**ds**) Anonymous 1926c: 517; Atkinson & Equihua 1988: 100; Beal & Massey 1942, 1945: 101–102; Blackman 1922b: 71–72, 1950; Blatchley & Leng 1916: 649; Bright 1976d: 104, 1985c: 172; Chamberlin 1939: 264; Chittenden 1890; Deyrup 1981b: 5; Deyrup & Atkinson 1987a: 65; Drooz 1986: 367; Henshaw 1882: 269, 1885: 148; Kleine 1913b: 145, 1914b: 399; Leng 1920: 339; Leonard 1928: 517; Riley 1891a: 130; Smith, J. B. 1910: 403; Turnbow & Franklin 1980; Ulke 1902: 56; Wood, S. L. 1982b: 564. (**tx**) Beal & Massey 1945: 101–102; Blackman 1920a: 36–37, 1922b: 71–72, 1928a: 197–198, 1943a: 351; Blatchley & Leng 1916: 649; Bright 1976d: 104, 1985c: 172; Chamberlin 1939: 264; Hagedorn 1910a: 120; Hamilton 1891: 130; Hopkins 1914: 130; LeConte 1876: 370; LeConte & Horn 1883: 519; Schwarz 1889: 165, 1894: 45, 1896: 45; Swaine 1909: 147, 1918a: 83; Wood, S. L. 1956b: 233, 1969b: 35, 1982b: 564.
- granulifer Wood** 1974a: 15. Holotype ♂; San Cristobal de las Casas, Chiapas, Mexico; CNCI, Ottawa. Distribution: North America (Chiapas in Mexico). References: (**ds**) Wood, S. L. 1982b: 562. (**tx**) McNamara 1984: 759; Wood, S. L. 1974a: 15, 1982b: 562.
- inornatus Wood** 1971: 24. Holotype ♀; Volcan Colima, Jalisco, Mexico; Wood Collection. Distribution: North America (Aguascalientes, Jalisco in Mexico). Hosts: *Mimosa* sp., *Rhus* sp. References: (**hb**) Atkinson et al. 1986: 31. (**ds**) Atkinson & Equihua 1985b: 234; Atkinson et al. 1986: 31, 60; Wood, S. L. 1982b: 560. (**tx**) Wood, S. L. 1971: 24, 1982b: 560.
- lobdelli Blackman** 1920a: 43. Lectotype ♀; Trincane Swamp, Mississippi [USA]; USNM, Washington, designated by Wood 1982b: 567. Figures: Blackman 1920a: pls. 3, 5, figs. 28, 44, 1922b: pl. 8, fig. 41. Distribution: North America (Oaxaca in Mexico/ Florida, Louisiana, Mississippi in USA). Hosts: *Carya* sp., *Castanea pumila*, *Quercus* sp. References: (**cn**) Blackman 1950; Doane et al. 1936. (**hb**) Baker, W. L. 1972: 253; Blackman 1922b: 71–72, 1950; Chamberlin 1939: 264; Doane et al. 1936. (**ds**) Blackman 1922b: 71–72, 1950; Chamberlin 1939: 264; Drooz 1985: 367; Kleine 1934a: 166; Leng & Mutchler 1927: 52; Wood, S. L. 1982b: 567. (**tx**) Blackman 1920a: 43, 1922b: 71–72, 1928a: 197, 199, 1943a: 351–352; Chamberlin 1939: 264; de Ruelle 1970: 114; Wood, S. L. 1956b: 234, 1982b: 567.
- mexicanus Wood** 1956b: 234. Holotype ♀; 40 km SE Oaxaca, Oaxaca, Mexico; SMUK, Lawrence. Distribution: North America (Hidalgo, Oaxaca in Mexico). Hosts: *Acacia* sp., etc. References: (**ds**) Estrada & Atkinson 1988: 205; Wood, S. L. 1982b: 561. (**tx**) de Ruelle 1970: 114; Wood, S. L. 1956b: 234, 1969b: 35, 1982b: 561.
- neotropicalis Wood** 1969b: 35. Holotype ♀; San Ignacio de Acosta, San Jose, Costa Rica; Wood Collection. Distribution: North America (Costa Rica). Hosts: *Calliandra confusa*. References: (**ds**) Wood, S. L. 1982b: 564. (**tx**) Wood, S. L. 1969b: 35, 1982b: 564.
- pallens Wood** 1956b: 234. Holotype ♀; Sanford, Florida [USA]; SMUK, Lawrence. Distribution: North America (San Luis Potosi, Veracruz in Mexico/ Florida, Louisiana in USA). Hosts: *Carya* spp., *Quercus* spp., *Rhizophora mangle*. References: (**ds**) Atkinson & Equihua 1988: 102; Wood, S. L. 1982b: 559. (**tx**) de Ruelle 1970: 114; Wood, S. L. 1956b: 234, 1982b: 559.

subsulcatus Wood 1969b: 35. Holotype ♀; 8 km W Tlalancingo, Hidalgo, Mexico; Wood Collection. Distribution: North America (Hidalgo in Mexico). Hosts: *Quercus* sp.

References: (hb) Atkinson et al. 1986: 31. (ds) Atkinson & Equihua 1985a: 83; Atkinson et al. 1986: 31; Wood, S. L. 1982b: 566. (tx) Wood, S. L. 1969b: 35, 1982b: 566.

texanus Blackman 1943a: 353. Holotype ♀; Brownsville, Texas [USA]; USNM, Washington. Distribution: North America (Colima, Jalisco, Nayarit, Sinaloa, Tamaulipas, Veracruz in Mexico/ Texas in USA).

Hosts: *Acacia* sp., *Mimosa* sp., *Prosopis juliflora*. References: (cc) Equihua & Atkinson 1986: 629. (hb) Equihua & Atkinson 1986: 629; Kirkendall 1984. (ds) Blackwelder & Blackwelder 1948; Equihua & Atkinson 1986: 629; Estrada & Atkinson 1988: 205; Wood, S. L. 1982b: 567. (tx) Blackman 1943a: 352–353; Wood, S. L. 1956b: 234, 1973c: 186, 1982b: 567.

vachelliae Blackman 1943a: 353. Holotype ♀; Brownsville, Texas [USA]; USNM, Washington. Synonymy: Wood 1973c: 186.

References: (ds) Blackwelder & Blackwelder 1948. (tx) Blackman 1943a: 353; McNamara 1984: 759; Wood, S. L. 1973c: 186.

ratanae Blackman 1943a: 354. Holotype ♀; Mexico; USNM, Washington. Synonymy: Wood 1973c: 186.

References: (tx) Blackman 1943a: 354; Wood, S. L. 1973c: 186.

tuberculatus Wood 1975a: 29. Holotype ♂; 85 km S Valle Nacional, Oaxaca, Mexico; CNCI, Ottawa. Distribution: North America (Oaxaca in Mexico). References: (ds) Atkinson & Equihua 1988: 102; Wood, S. L. 1982b: 563. (tx) McNamara 1984: 759; Wood, S. L. 1975a: 29, 1982b: 563.

xylophagus Blackman 1928a: 198. Holotype ♀; Williams, Arizona [USA]; USNM, Washington. Distribution: North America (Durango in Mexico/ Arizona, New Mexico in USA). Hosts: *Quercus* spp.

References: (cn) Doane et al. 1936. (hb) Chamberlin 1939: 265; Doane et al. 1936; Wood, S. L. 1982b: 569. (ds) Chamberlin 1939: 265; Furniss, M. M. 1978; Furniss, R. L. & Carolin 1977: 383; Keen 1929a: 26; Kleine 1934a: 166; Leng & Mutchler 1933: 53; Wood, S. L. 1982b: 569. (tx) Blackman 1928a: 198, 1943a: 351–352; Chamberlin 1939: 265; Keen 1929a: 26; Wood, S. L. 1982b: 569.

Genus *Phloeocleptus* Wood

PHILOEOCLEPTUS WOOD 1956a: 147. Type-species: *Phloeocleptus caudatus* Wood, original description. Keys: Wood 1982b: 570.

Notes: (3) Species of this genus are exclusively

phloeophagous; the superficially similar *Hylocurus* species are xylophagous.

References: (hb) Wood, S. L. 1986a: 65. (ds) Wood, S. L. 1986a: 65. (tx) Schedl 1959r: 42; Wood, S. L. 1956a: 147, 1961c: 4, 1982b: 570–578, 1986a: 65.

ardis Wood 1981: 124. Holotype ♂; Cerro Chipinque, Monterrey, Nuevo Leon, Mexico, 1300 m; Wood Collection.

Distribution: North America (Nuevo Leon in Mexico).

Hosts: *Persea* sp.

References: (hb) Atkinson & Equihua 1985b: 234. (ds) Atkinson & Equihua 1985b: 234; Wood, S. L. 1982b: 578. (tx) Wood, S. L. 1981: 124, 1982b: 578.

atkinsoni Wood 1981: 124. Holotype ♂; Uruapan, Michoacan, Mexico; Wood Collection.

Distribution: North America (Michoacan in Mexico).

Hosts: *Persea* sp.

References: (hb) Atkinson & Equihua 1985b: 234. (ds) Atkinson & Equihua 1985b: 234; Wood, S. L. 1982b: 575. (tx) Wood, S. L. 1981: 124, 1982b: 575.

caudatus Wood 1956a: 147. Holotype ♂; 9 km NE Teziutlan, Puebla, Mexico; SMUK, Lawrence.

Distribution: North America (Puebla in Mexico).

Hosts: Tree branches.

References: (hb) Atkinson & Equihua 1985b: 576; Wood, S. L. 1982b: 576. (ds) Atkinson & Equihua 1985b: 234; Wood, S. L. 1982b: 576. (tx) de Ruelle 1970: 105; Schedl 1959r: 42; Wood, S. L. 1956a: 147, 1982b: 576.

cristatus Wood 1981: 125. Holotype ♂; Tepoztlan, Morelos, Mexico; Wood Collection.

Distribution: North America (Morelos in Mexico).

Hosts: *Persea* sp.

References: (hb) Atkinson et al. 1986: 29; Burgos & Saucedo 1983: 85. (ds) Atkinson & Equihua 1985b: 234; Atkinson et al. 1986: 29; Burgos & Saucedo 1983: 85. (tx) Wood, S. L. 1981: 125, 1982b: 575.

nanulus Wood 1969b: 45. Holotype ♂; 7 km W Tepic, Nayarit, Mexico, 1000 m; Wood Collection.

Distribution: North America (Nayarit in Mexico).

Hosts: Tree branches.

References: (hb) Wood, S. L. 1982b: 575. (ds) Wood, S. L. 1982b: 575. (tx) Wood, S. L. 1969b: 45–46, 1982b: 575.

obscurus Wood 1956a: 148. Holotype ♂; El Salto, San Luis Potosi, Mexico; SMUK, Lawrence.

Distribution: North America (San Luis Potosi in Mexico).

Hosts: *Persea americana*.

References: (hb) Wood, S. L. 1982b: 574. (ds) Wood, S. L. 1982b: 574. (tx) de Ruelle 1970: 105; Wood, S. L. 1956a: 148, 1969b: 45, 1982b: 574.

parvus Wood 1969b: 46. Holotype ♂; Los Corchos, Nayarit, Mexico; Wood Collection.

Distribution: North America (Nayarit in Mexico).
Hosts: Tree branches.

References: (hb) Wood, S. L. 1982b: 574. (ds) Wood, S. L. 1982b: 574. (tx) Wood, S. L. 1969b: 46, 1982b: 574.

plagiatus Wood 1969b: 45. Holotype ♂; 7 km W Tepic, Nayarit, Mexico; Wood Collection.

Distribution: North America (Nayarit in Mexico).
Hosts: Tree branches.

References: (hb) Atkinson & Equilma 1985b: 234; Wood, S. L. 1982b: 573. (ds) Atkinson & Equilma 1985b: 234; Wood, S. L. 1982b: 573. (tx) Muskus, A. 1984: 79; Wood, S. L. 1969b: 45, 1982b: 573.

punctatus Wood 1980b: 355. Holotype ♀; Santa Rosa National Park, Guanacaste Province, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).
Hosts: Tree branches.

References: (ds) Wood, S. L. 1982b: 572. (tx) Wood, S. L. 1980b: 355, 1982b: 572.

spicatus Wood 1981: 125. Holotype ♂; Cerro Chipinque, Monterrey, Nuevo Leon, Mexico, 1300 m; Wood Collection.

Distribution: North America (Nuevo Leon in Mexico).
Hosts: *Persea* sp.

References: (ds) Atkinson & Equilma 1985b: 234; Wood, S. L. 1982b: 576. (tx) Wood, S. L. 1981: 125, 1982b: 576.

tresmariae (Schedl) 1956b: 32 (*Hylocurus*). Holotype ♀?; village on Maria Madre, Tres Marias Islands, Gulf of California; CAS, San Francisco. Distribution: North America (Tres Marias Islands in Mexico).

Notes: (1) Wood 1982b: 572 (to *Phloeocleptus*).

References: (ds) Schedl 1976a: 53; Wood, S. L. 1982b: 572. (tx) Schedl 1956b: 32, 1979c: 255; Wood, S. L. 1966b: 29, 1982b: 572.

Genus *Hylocurus* Eichhoff

HYLOCURUS EICHHOFF 1872a: 133. Type-species: *Hylocurus elegans* Eichhoff, monobasic.

Micracisoides Blackman 1920a: 19. Type-species: *Micracis rudis* LeConte, subsequent designation by Wood 1982b: 608. Synonymy: Blackman 1922a: 144.

References: (tx) Blackman 1920a: 19, 22, 1922a: 55–66, 1922b: 144–145; Wood, S. L. 1982b: 608.

Keys: Wood 1982b: 609.

Notes: (3) *Hylocurus* species are xylophagous both as larvae and as adults.

References: (cn) Blackman 1950. (hb) Wood, S. L. 1986a: 65. (ds) Wood, S. L. 1986a: 65. (tx) Beal & Massey 1945: 59, 96; Blackman 1922a: 143–145, 1928a: 186, 1943a: 242, 244; Blandford

1895b: 81–82, 1896e: 119, 1898b: 219–221; Bright 1978: 105; Bright & Stark 1973: 64; Chamberlin 1939: 247–248, 256–258; Eggers 1940a: 138; Eichhoff 1872a: 133, 1878b: 35, 56, 298; Hagedorn 1904c: 412, 1910a: 118–119, 1910d: 77; Hopkins 1914: 123, 133, 1915c: 176, 226; Lindemann 1876: 169; Schedl 1955g: 4, 1957d: 69, 71, 1957e: 865–883, 1959m: 545–557, 1959r: 42, 1962j: 33; Schreiner 1882: 246; Wood, S. L. 1956a: 147, 1982b: 608–636, 1986a: 65.

aberrans Wood 1969b: 44. Holotype ♂; Dominical, Puntarenas, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

References: (ds) Schedl 1976a: 51, 1977d: 277, 1979b: 415; Wood, S. L. 1982b: 634. (tx) Wood, S. L. 1969b: 44, 1982b: 634.

acutedentatus Schedl 1978c: 300. Holotype ♂; Brasilien, Encruzilhada, 900 m, Babia; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1978c: 300.

alienus Eichhoff 1878b: 301. Holotype, sex?; Cuba insula Americana; Schedl Collection in NHMW, Wien.

Distribution: Antilles Islands (Cuba).

Notes: (1) Holotype pin is empty except for abdominal sterna.

References: (cc) Wichmann 1955a: 107. (ds) Blackvelder 1947: 784; Blandford 1898b; Bright 1985c: 172; Ferrer 1942; Hagedorn 1910d: 77; Kleine 1913b: 145, 1914b: 352; Wichmann 1955a: 107. (tx) Blackman 1922a: 143, 145; Blandford 1898b; Bright 1985c: 172; Eggers 1951: 153; Eichhoff 1878b: 301; Hagedorn 1910a: 119; Schedl 1940a: 339, 1950i: 148–149, 1979c: 16.

alternatus Eggers 1951: 153. Holotype, sex?; Venezuela; Eggers Collection, in NHMW, Wien.

Distribution: South America (Venezuela).

Notes: (1) DEB examined 2 male “cotypes” in NHMW, Wien; obviously 1 of them is the holotype.

References: (tx) Eggers 1951: 153; Schedl 1979c: 17.

alternus Wood 1969b: 43. Holotype ♂; 21 km SE Liberia, Guanacaste, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

References: (ds) Wood, S. L. 1982b: 631. (tx) Wood, S. L. 1969b: 43–44, 1982b: 631.

atkinsoni Wood 1987: 547. Holotype ♂; El Casillo, Veracruz, Mexico; Wood Collection.

Distribution: North America (Veracruz in Mexico).

Hosts: *Acacia pennatula*, *Leucaena pulverulenta*.
References: (tx) Wood, S. L. 1987: 547–548.

beckeri Heqvist 1954: 8. Holotype ♀; Chimaltenango, Guatemala; NHR, Stockholm.

Distribution: North America (Guatemala).

Hosts: *Pinus* sp.

References: (cc) Becker 1953: 363, 1955. (hb)

- Becker 1953: 363, 1955. (**ds**) Becker 1953: 363; Wood, S. L. 1982b: 635. (**tx**) Heqvist 1954: 8; Schedl 1955g: 16; Wood, S. L. 1982b: 635.
- biconcavus** Blackman 1943a: 344. Holotype ♀; Kentucky [USA]; USNM, Washington.
Distribution: North America (Kentucky in USA).
References: (**ds**) Blackwelder & Blackwelder 1948; Wood, S. L. 1982b: 616. (**tx**) Blackman 1943a: 344; Wood, S. L. 1982b: 616.
- bicornus** (Blackman) 1920a: 23 (*Micracis*). Lectotype ♀; Mendenhall, Mississippi [USA]; USNM, Washington, designated by Wood 1982b: 616.
Distribution: North America (Mississippi in USA).
Hosts: *Carya* sp.
References: (**cn**) Blackman 1950; Doane et al. 1936. (**hb**) Blackman 1922b: 66–67, 1950; Chamberlin 1939: 259; Doane et al. 1936. (**ds**) Blackman 1922b: 66–67, 1950; Chamberlin 1939: 259; Deyrup 1981b: 5; Deyrup & Atkinson 1987b: 67; Droy 1985: 367; Kleine 1934a: 165; Leng & Mutchler 1927: 52; Wood, S. L. 1982b: 616. (**tx**) Atkinson 1989b: 328; Blackman 1920a: 23, 1922a: 145, 1922b: 66–67, 1928a: 186, 188; Chamberlin 1939: 259; McNamara 1984: 753; Wood, S. L. 1982b: 616.
- bidentatus** Schedl 1950i: 149. Syntypes ♂ ♀; Brazil, Santa Catharina, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection.
Distribution: South America (Brazil).
Notes: (3) Wood 1972e: 196 (a probable synonym of *retusipennis* Blandford).
References: (**ds**) Schedl 1966f: 86, 1973d: 156, 1976a: 53, 1979e: 58. (**tx**) Schedl 1950i: 149, 1958f: 34, 1959m: 547, 1979c: 39; Wood, S. L. 1972e: 196, 1982b: 635.
- binodatus** Wood 1974a: 17. Holotype ♀; Nicholson, Mississippi [USA]; USNM, Washington.
Figures: Atkinson et al. 1991: 157 (adult).
Distribution: North America (Illinois, Indiana, Louisiana, Mississippi, Missouri in USA).
Hosts: *Carya* sp.
References: (**hb**) Deyrup & Atkinson 1987a: 65. (**ds**) Atkinson 1989b: 335, 337; Atkinson et al. 1991: 157; Deyrup & Atkinson 1987a: 65, 1987b: 67; Wood, S. L. 1982b: 614. (**tx**) Atkinson 1989b: 328, 335; Wood, S. L. 1974a: 17, 1982b: 614.
- brasilienis** Nunberg 1956: 208. Syntypes, sex?; Brasilien: Matto Grosso, Rio Caraguata; Schedl Collection in NHMW, Wien, and Plaumann Collection, automatic.
Distribution: South America (Brazil).
References: (**ds**) Schedl 1976a: 53. (**tx**) Nunberg 1956: 208; Schedl 1960h: 106.
simplex Schedl 1954b: 33. Syntypes, sex?; Brasilien: Matto Grosso, Rio Caraguata; Schedl Collection in NHMW, Wien, and Plaumann Collection, preoccupied by Blandford 1898.
References: (**tx**) Nunberg 1956: 208; Schedl 1954b: 33, 1958k: 144, 1960h: 106, 1979c: 230.
rectus Schedl 1958k: 144. Syntypes, sex?; Brasilien: Matto Grosso, Rio Caraguata; Schedl Collection in NHMW, Wien, and Plaumann Collection, an unneeded replacement name for *simplex* Schedl.
References: (**tx**) Schedl 1958k: 144, 1960h: 106.
- cancellatus** Blandford 1898b: 221. Lectotype ♂; Quiche Mts., Guatemala, 5–9700 ft.; BMNH, London, designated by Wood 1982b: 627.
Figures: Blandford 1898b: 221.
Distribution: North America (Guatemala).
References: (**ds**) Blackwelder 1947: 784; Hagedorn 1910d: 77; Heqvist 1954; Kleine 1913b: 145, 1914b: 370; Wood, S. L. 1982b: 627. (**tx**) Blandford 1898b: 221; Hagedorn 1910a: 119; Heqvist 1954: 9; Wood, S. L. 1956a: 147, 1969b: 45, 1982b: 627.
- carinifrons** Atkinson 1989: 331. Holotype ♀; Florida: Suwannee Co., Branford [USA]; USNM, Washington.
Distribution: North America (Florida in USA).
Hosts: *Planera aquatica*.
References: (**tx**) Atkinson 1989: 331.
- clarki** Wood 1979b: 141. Holotype ♂; between Sicabe and San Miguel Ixtahuacan, San Marcos, Guatemala; Wood Collection.
Distribution: North America (Guatemala).
Hosts: *Pinus tenuifolia*.
References: (**ds**) Wood, S. L. 1982b: 634. (**tx**) Wood, S. L. 1979b: 141, 1982b: 634.
- crotonis** Wood 1987: 548. Holotype ♂; Estacion de Biologia, Chamela, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: *Croton pseudoniveus*.
References: (**tx**) Wood, S. L. 1987: 548.
- cuspidatus** Eggers 1951: 153. Holotype ♂; Cuba; Eggers Collection, in NHMW, Wien.
Distribution: Antilles Islands (Cuba).
References: (**ds**) Bright 1985c: 172. (**tx**) Bright 1985c: 172; Eggers 1951: 153; Schedl 1979c: 73.
- denticollis** Schedl 1976a: 71. Holotype ♂; Eneruzilhada, 980 m, Bahia, Brasil; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (**tx**) Schedl 1976a: 71.
- dilutus** Wood 1971: 29. Holotype ♂; Volcan Colima, Jalisco, Mexico, 2500 m; Wood Collection.
Distribution: North America (Jalisco, Michoacan in Mexico).
References: (**hb**) Wood, S. L. 1982b: 622. (**ds**) Atkinson & Equihua 1985b: 234; Atkinson et al. 1986: 58; Wood, S. L. 1982b: 622. (**tx**) Wood, S. L. 1971: 29, 1982b: 622.

dimorphus (Schedl) 1939k: 724 (*Micracis*). Syntypes ♂ ♀; Nova Teutonia, Sta. Catharina, Brasilien; Schedl Collection in NHMW, Wien, and Plaumann Collection.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 784; Schedl 1966f: 87. (tx) Schedl 1939k: 724, 1950i: 284, 1962p: 206; Wood, S. L. 1956a: 152.

acuminatus Schedl 1950i: 148. Holotype ♂; Santa Catarina, Brasil; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1962p: 206.

References: (hb) Viana 1964: 126. (ds) Viana 1964: 126. (tx) Schedl 1950i: 148, 1951h: 284, 1962p: 206, 1979c: 11.

discifer Eichhoff 1878b: 300. Holotype, sex?; *America meridionalis* (Venezuela); Hamburg Museum, lost.

Distribution: South America (Venezuela).

References: (ds) Blackwelder 1947: 784; Hagedorn 1910d: 77; Kleine 1913b: 145, 1914b: 339. (tx) Blackman 1922a: 143–145; Eichhoff 1878b: 300; Hagedorn 1910a: 119; Schedl 1950i: 150.

disparilis Wood 1971: 29. Holotype ♂; Zamorano, Morazan, Honduras; Wood Collection.

Distribution: North America (Honduras).

Hosts: *Ficus glabrata*.

References: (hb) Wood, S. L. 1982b: 631. (ds) Wood, S. L. 1982b: 631. (tx) Wood, S. L. 1971: 29–30, 1982b: 631.

dissidens Wood 1971: 30. Holotype ♂; Laguna Santa Maria, Nayarit, Mexico; Wood Collection.

Distribution: North America (Nayarit in Mexico).

Hosts: Liana.

References: (hb) Wood, S. L. 1982b: 633. (ds) Atkinson & Equihua 1985b: 234; Atkinson et al. 1986: 58; Wood, S. L. 1982b: 633. (tx) Wood, S. L. 1971: 30, 1982b: 633.

dissimilis Wood 1984e: 115. Holotype ♂; Estacion de Biologia, Chamela, Jalisco, Mexico; Wood Collection.

Distribution: North America (Jalisco in Mexico).

Hosts: Sapindaceae.

References: (ec) Equihua & Atkinson 1986: 627. (hb) Equihua & Atkinson 1986: 627. (ds) Equihua & Atkinson 1986: 627. (tx) Wood, S. L. 1984e: 115.

dubius Schedl 1959m: 547. Syntypes, sex?; Brasilien, Rondon; Schedl Collection in NHMW, Wien, Plaumann Collection, and Strohmeier Collection, Eberswald.

Distribution: South America (Brazil).

References: (tx) Schedl 1959m: 547, 1979c: 85.

effeminatus Wood 1956a: 143. Holotype ♂; 8 km NW Totolapan, Oaxaca, Mexico; SMUK, Lawrence.

Distribution: North America (Oaxaca in Mexico).

Hosts: Leguminous tree.

References: (ds) Wood, S. L. 1959a: 59, 1982b:

625. (tx) de Ruette 1970: 101; Schedl 1979c: 86; Wood, S. L. 1956a: 143, 1959a: 59, 1982b: 625.

egenus Blandford 1898b: 222. Holotype ♂; Motzorongo, Veracruz, Mexico; BMNH, London.

Distribution: North America (Veracruz in Mexico).

References: (ds) Blackwelder 1947: 784; Ferrer 1942; Hagedorn 1910d: 78; Kleine 1913b: 145, 1914b: 352; Wood, S. L. 1982b: 621. (tx) Blandford 1898b: 222; Hagedorn 1910a: 119; Schedl 1940a: 339; Wood, S. L. 1982b: 621.

elegans Eichhoff 1872a: 134. Holotype ♂; Teapa, Tabasco, Mexico; IRSNB, Brussels.

Distribution: Antilles Islands (Haiti in Hispanola/Jamaica), North America (Costa Rica/ Honduras/ Colima, Jalisco, Nayarit, Tabasco in Mexico), South America (Colombia).

Hosts: *Acacia* spp., *Inga* sp., *Coffea arabica*.

References: (ec) Equihua & Atkinson 1986: 628. (hb) Equihua & Atkinson 1986: 628. (ds) Atkinson & Equihua 1985b: 234; Blackwelder 1947: 784; Blandford 1898b: 222–223; Bright 1985c: 172; Equihua & Atkinson 1986: 628; Ferrer 1947; Gemminger & Harold 1872: 2684; Hagedorn 1910d: 78; Kleine 1913b: 145, 1914b: 352; Wood, S. L. 1982b: 632. (tx) Blackman 1922a: 143, 145, 1943a: 334; Blandford 1898b: 222–223; Bright 1985c: 172; Eichhoff 1872a: 134, 1878b: 299; Hagedorn 1910a: 119; Hopkins 1914: 123; Lucas 1920: 342; Schedl 1940a: 339, 1950i: 150; Wood, S. L. 1972e: 195, 1982b: 632. (ms) Lucas 1920: 342.

minor Wood 1961c: 4. Holotype ♀; Finca Alto Bonito, Caicedonia, Valle de Cauca, Colombia; Wood Collection. Synonymy: Wood 1972e: 195.

References: (ds) Bright 1981c: 154. (tx) Wood, S. L. 1961c: 4, 1972e: 195.

equidens Wood 1956a: 144. Holotype ♂; Los Abritos, 32 km NE Ciudad del Maïs, San Luis Potosi, Mexico; SMUK, Lawrence.

Distribution: North America (San Luis Potosi in Mexico).

References: (ds) Atkinson & Equihua 1985b: 234; Wood, S. L. 1982b: 630. (tx) de Ruette 1970: 101; Schedl 1979c: 91; Wood, S. L. 1956a: 144, 147, 1982b: 630.

errans Blandford 1898b: 224. Lectotype ♂; “Mexican” [actually Brazilian] tobacco refuse; BMNH, London, designated by Wood 1982b: 625.

Distribution: South America (Brazil).

References: (ds) Blackwelder 1947: 784; Ferrer 1942; Hagedorn 1910d: 78; Kleine 1913b: 145, 1914b: 352; Nunnberg 1958a: 489; Wood, S. L. 1982b: 625. (tx) Blandford 1898b: 224; Hagedorn 1910a: 119; Nunnberg 1958a: 489; Schedl 1940a: 340, 1950i: 149; Wood, S. L. 1982b: 625.

femineus Wood 1959a: 59. Holotype ♂; Miller Canyon, Huachuca Mts., Arizona [USA]; Wood Collection.

Distribution: North America (Michoacan in Mexico/ Arizona in USA).

Hosts: *Quercus* sp.

References: **(hb)** Atkinson & Equihua 1985b: 234; Atkinson et al. 1986: 26. **(ds)** Atkinson & Equihua 1985b: 234, 1988: 90; Atkinson et al. 1986: 26; Kirkendall 1984: 241; Wood, S. L. 1959a: 59, 1969b: 44, 1982b: 624. **(tx)** Wood, S. L. 1959a: 59, 1982b: 624.

flagellatus Wood 1971: 32. Holotype ♀; Rancho Grande, Pittier National Park, Aragua, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Nectandra* sp.

References: **(tx)** Wood, S. L. 1971: 32.

flaglerensis Blackman 1943a: 345. Holotype ♀; Flagler Co., Florida [USA]; USNM, Washington. Distribution: North America (Florida in USA).

References: **(ds)** Blackwelder & Blackwelder 1948; Wood, S. L. 1982b: 620. **(tx)** Blackman 1943a: 345; Wood, S. L. 1982b: 620.

floridensis Atkinson 1989: 333. Holotype ♀; Florida: Suwannee Co., Branford [USA]; USNM, Washington.

Distribution: North America (Florida in USA).

Hosts: *Planera aquatica*.

References: **(tx)** Atkinson 1989: 333.

giganteus (Schedl) 1950i: 152 (*Micracis*). Syntypes, sex?; Brazil: Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection.

Distribution: South America (Brazil).

Notes: (1) Schedl 1979c: 104 (citation of holotype invalid).

References: **(tx)** Schedl 1950i: 152, 1979c: 104.

harnedi (Blackman) 1920a: 24 (*Micracis*). Lectotype ♀; Mendenhall, Mississippi [USA]; USNM, Washington, designated by Wood 1982b: 616.

Figures: Blackman 1920a: pl. 1, fig. 4 (female antenna), pl. 5, figs. 47–48, 1922b: pl. 6, figs. 33–34.

Distribution: North America (Mississippi in USA).

Hosts: *Carya* sp.

References: **(cn)** Blackman 1950. **(hb)** Blackman 1950; Chamberlin 1939: 259. **(ds)** Blackman 1950; Chamberlin 1939: 259; Drooz 1985: 367; Kleine 1934a: 165; Leng & Mutchler 1927: 52; Wood, S. L. 1982b: 616. **(tx)** Blackman 1920a: 24, 1922a: 145, 1922b: 66–67, 1928a: 145; Chamberlin 1939: 259; Wood, S. L. 1982b: 616.

hirtellus (LeConte) 1876: 369 (*Micracis*). Holotype ♀; southern California [USA]; MCZ, Cambridge. Figures: Bright & Stark 1973: 157 (adult).

Distribution: North America (British Columbia in Canada/ Baja California in Mexico/ California, Oregon, Washington in USA).

Hosts: *Alnus* sp., *Arbutus menzeisii*, *Ceanothus* sp., *Myrica* sp., *Populus* sp., *Quercus* sp., *Rhamnus* sp., *Rhus* sp., *Salix* sp., *Umbellularia* sp.

Notes: (3) Blackman 1920a: 27 (redescribed).

References: **(cn)** Armitage et al. 1953: 218; Doane

et al. 1936; Keen 1938: 132; Packard 1890: 671; Struble & Hall 1954: 933. **(cc)** Keen 1938: 132. **(hb)** Bright 1976d: 105; Bright & Stark 1973: 64; Chamberlin 1939: 252, 1958: 121; Doane et al. 1936; Keen 1938: 132. **(ds)** Blaisdell 1892: 36; Bright 1976d: 105; Bright & Skidmore 1991: 368; Bright & Stark 1973: 65; Chamberlin 1939: 252, 1958: 121; Fall 1906: 202; Furniss, R. L. & Carolin 1977: 382; Hagedorn 1882: 269; Henshaw 1882: 269, 1885: 148; Keen 1938: 132; Kleine 1913b: 145, 1914b: 391, 1934a: 165; Leng 1920: 339; Patterson & Hatch 1945: 162; Rivers 1886: 67; Swaine 1909: 127; Wood, S. L. 1972a: 413, 1982b: 623. **(tx)** Blackman 1920a: 27–28, 1922b: 145, 1928a: 192–193; Bright 1966b: 304, 1976d: 105; Bright & Stark 1973: 157; Chamberlin 1939: 252, 1958: 121; Hagedorn 1910a: 117; LeConte 1876: 369; LeConte & Horn 1883: 517; Swaine 1909: 127; Wood, S. L. 1966b: 24, 1972a: 413, 1982b: 623.

crinitus Blackman 1943a: 347. Holotype ♂; Orange, California [USA]; USNM, Washington. Synonymy: Bright 1966b: 304.

References: **(ds)** Blackwelder & Blackwelder 1948; Bright 1966b: 304; Nunberg 1958a: 489. **(tx)** Blackman 1943a: 347; Bright 1966b: 304; Nunberg 1958: 489.

impar Schedl 1939k: 723. Holotype ♂; Brazil, Sta. Catarina; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

Notes: (3) Schedl 1950i: 151 (described female).

References: **(ds)** Blackwelder 1947: 784; Nunberg 1958a: 489; Schedl 1966f: 87, 1973d: 156. **(tx)** Nunberg 1958a: 489; Schedl 1939k: 723, 1950i: 151, 1951h: 284, 1954b: 30, 1959m: 548, 1979c: 122; Wood, S. L. 1956a: 142.

inaequalis Wood 1956a: 146. Holotype ♂; 9 km S Tehuantepec, Oaxaca, Mexico; SMUK, Lawrence. Distribution: North America (Colima, Nayarit, Oaxaca in Mexico).

Hosts: *Acacia* sp., *Inga paterno*.

References: **(cn)** Estrada & Atkinson 1988: 205. **(cc)** Equihua & Atkinson 1986: 628. **(hb)** Equihua & Atkinson 1986: 628. **(ds)** Equihua & Atkinson 1986: 628; Estrada & Atkinson 1988: 205; Wood, S. L. 1982b: 631. **(tx)** de Ruelle 1970: 101; Schedl 1979c: 123; Wood, S. L. 1956a: 146, 1959a: 43, 1982b: 631.

incomptus Wood 1969b: 44. Holotype ♂; Volcan de Agua, Esquinla, Guatemala, 1000 m; Wood Collection.

Figures: Wood 1969b: 44.

Distribution: North America (Guatemala/ Chiapas in Mexico).

Hosts: *Quercus* sp.

References: **(hb)** Burgos & Saucedo 1983: 92; Wood, S. L. 1982b: 618. **(ds)** Atkinson & Equihua 1985a: 84; Burgos & Saucedo 1983: 92; Wood, S. L. 1982b: 618. **(tx)** Wood, S. L. 1969b: 44, 1982b: 618.

- intermedius** Schedl 1952a: 458. Syntypes, sex?; Argentina, Tigre and Pilar; Schedl Collection in NHMW, Wien, and Viana Collection. Distribution: South America (Argentina). References: (hb) Viana 1964: 126. (ds) Schedl 1976a: 53; Viana 1964: 126. (tx) Schedl 1951b: 284, 1952a: 458, 1958f: 34, 1979c: 126; Wood, S. L. 1969b: 44.
- interpositus** Schedl 1976a: 71. Holotype, sex?; Encruzilhada, 930 m, Bahia, Brasil; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (tx) Schedl 1976a: 71.
- interruptus** Schedl 1959m: 548. Holotype ♂; Nova Teutonia; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (tx) Schedl 1959m: 548, 1979c: 127.
- langstoni** Blackman 1920a: 26. Lectotype ♀; Agricultural College [Starkville], Mississippi [USA]; USNM, Washington, designated by Wood 1982b: 628. Figures: Blackman 1920a: pl. 1, fig. 5, (female antenna), pl. 2, fig. 17, pl. 3, fig. 42, pl. 5, figs. 45–46, 1922b: pl. 6, figs. 31–37. Distribution: North America (Florida, Maryland, Mississippi, South Carolina, Texas, Virginia in USA). Hosts: *Celtis pallida*, *C. sp.*, *Gleditsia triacanthos*, *Morus rubra.*, *Ulmus* sp. References: (bv) Baker, W. L. 1972: 253. (cn) Baker, W. L. 1972: 253; Blackman 1950; Doane et al. 1936. (hb) Baker, W. L. 1972: 253; Blackman 1950; Chamberlin 1939: 260; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Kirkendall 1984: 238. (ds) Blackman 1950; Chamberlin 1939: 260; Deyrup & Atkinson 1987a: 65; Drooz 1985: 367; Hoffmann 1940: 60, 1942: 12; Kleine 1934a: 165; Leng & Mutchler 1927: 52; Wood, S. L. 1982b: 628. (tx) Blackman 1920a: 26, 1922a: 145, 1928a: 186, 190, 1943a: 345–346; Chamberlin 1939: 260; Wood, S. L. 1982b: 628.
- longipennis** Wood 1979b: 141. Holotype ♂; 5 km W El Salto, Durango, Mexico; Wood Collection. Distribution: North America (Durango in Mexico). Hosts: *Quercus* sp. References: (ds) Wood, S. L. 1982b: 624. (tx) Wood, S. L. 1979b: 141, 1982b: 624.
- medius** Wood 1956a: 144. Holotype ♂; 8 km W Antiguo Morelos, Tamaulipas, Mexico; SMUK, Lawrence. Distribution: North America (San Luis Potosi, Tamaulipas in Mexico). References: (ds) Wood, S. L. 1982b: 628. (tx) de Ruetete 1970: 101; Schedl 1979c: 150; Wood, S. L. 1956a: 144, 1982b: 628.
- micaceus** Wood 1984e: 116. Holotype ♂; Estacion de Biologia, Chamela, Jalisco, Mexico; Wood Collection. Distribution: North America (Jalisco in Mexico). References: (ec) Equihua & Atkinson 1986: 628. (hb) Equihua & Atkinson 1986: 628. (ds) Equihua & Atkinson 1986: 628. (tx) Wood, S. L. 1984e: 116.
- microcornis** Wood 1969b: 45. Holotype ♂; 26 km E Texmelucan, Puebla, Mexico; Wood Collection. Distribution: North America (Puebla in Mexico). Hosts: *Salix* sp. References: (hb) Atkinson et al. 1986: 27. (ds) Atkinson & Equihua 1985a: 84; Atkinson et al. 1986: 27; Wood, S. L. 1982b: 630. (tx) Wood, S. L. 1969b: 45, 1982b: 630.
- nodulus** Wood 1956a: 141. Holotype ♂; Pujal, San Luis Potosi, Mexico; SMUK, Lawrence. Distribution: North America (Costa Rica/ Honduras/ Jalisco, San Luis Potosi in Mexico). Hosts: *Bambusa vulgaris*, and native bamboo. References: (hb) Atkinson et al. 1986: 58. (ds) Atkinson et al. 1986: 58. Schedl 1977e: 42; Wood, S. L. 1982b: 620. (tx) de Ruetete 1970: 101; Schedl 1979c: 171; Wood, S. L. 1956a: 141, 1982b: 620.
- obtusipennis** Schedl 1976a: 72. Holotype ♀; Encruzilhada, 950 m, Bahia, Brasil; Schedl Collection in NHMW, Wien. Distribution: South America (Brazil). References: (tx) Schedl 1976a: 72.
- parkinsoniae** Blackman 1922a: 142. Holotype ♂; Ray, Arizona [USA]; USNM, Washington. Figures: Blackman 1922a: figs. 1–4. Distribution: North America (Arizona, S California, W Texas in USA). Hosts: *Celtis laevigatus*, *Cercidium* spp., *Condalia obtusifolia*, *Mimosa* sp., *Quercus* sp. References: (cn) Doane et al. 1936. (hb) Bright & Stark 1973: 64; Chamberlin 1939: 261; Doane et al. 1936. (ds) Bright & Stark 1973: 64; Chamberlin 1939: 261; Furniss, R. L. & Carolin 1977: 382; Keen 1929a: 26; Kleine 1934a: 165; Leng & Mutchler 1927: 52; Wood, S. L. 1982b: 626. (tx) Blackman 1922a: 142, 1928a: 187, 190–191, 195–196; Chamberlin 1939: 261; Keen 1929a: 26; de Ruetete 1970: 102; Schedl 1979c: 185; Wood, S. L. 1956a: 144, 1982b: 626.
- pilosus** Schedl 1950i: 151. Lectotype ♀; Brazil, Nova Teutonia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 194. Distribution: South America (Brazil). References: (hb) Viana 1964: 126. (ds) Numberg 1958a: 489; Viana 1964: 126. (tx) Numberg 1958a: 489–490; Schedl 1950i: 151, 1952a: 456, 1954b: 33, 1958f: 34, 1979c: 194.
- prolatus** Wood 1982a: 228. Holotype ♂; Zacapoaxia, Puebla, Mexico; Wood Collection. Distribution: North America (Puebla in Mexico). Hosts: *Carya* sp. References: (tx) Wood, S. L. 1982a: 228.

pseudoimpar Schedl 1954b: 30. Syntypes, sex?; Brasilien: Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection.

Distribution: South America (Brasil).

Notes: (1) Schedl 1979c: 201 (citation of holotype invalid).

References: (ds) Nunberg 1958a: 489. (tx) Nunberg 1958a: 489–490; Schedl 1954b: 30, 1979c: 201.

punctatorugosus (Schedl) 1948h: 575 (*Micracis*). Holotype ♀; Mexico, Michoacan, Mexico; Schedl Collection in NHMW, Wien.

Distribution: North America (Michoacan in Mexico).

Notes: (1) Wood 1982b: 635 (to *Hylocurus*).

References: (ds) Wood, S. L. 1982b: 635. (tx) Schedl 1948h: 575, 1979c: 204; Wood, S. L. 1982b: 635.

quadrspinus Blackman 1928a: 191. Holotype ♂; Cayamas, Cuba; USNM, Washington.

Distribution: Antilles Islands (Cuba).

References: (ds) Blackwelder 1947: 784; Bright 1955c: 172. (tx) Blackman 1928a: 191; Bright 1955c: 172.

retusipennis Blandford 1898b: 223. Holotype ♂; "Mexican" [actually Brazilian] tobacco refuse intercepted at Paris, France; BMNH, London.

Distribution: South America (Brazil).

Notes: (3) Wood 1972e: 190 (*bidentatus* Schedl is an apparent synonym), 1982b: 635 (all Blandford 1898b species named from "Mexican" tobacco refuse are actually from Brazil).

References: (ce) Wichmann 1955a: 107. (ds) Blackwelder 1947: 784; Ferrer 1942; Hagedorn 1910d: 78; Kleine 1913b: 145, 1914b: 352; Wichmann 1955a: 107. (tx) Blackman 1943a: 345–346; Blandford 1898b: 223; Hagedorn 1910a: 119; Schedl 1940a: 339; Wood, S. L. 1956a: 144, 1972e: 190, 1982b: 635.

ribalis Wood 1974a: 16. Holotype ♂; 5 km N Suchixtepec, Oaxaca, Mexico; CNCI, Ottawa.

Distribution: North America (Oaxaca in Mexico). Hosts: *Pinus* sp.

References: (ds) Wood, S. L. 1982b: 626. (tx) McNamara 1984: 753; Wood, S. L. 1974a: 16, 1982b: 626.

robustus Schedl 1952a: 456. Syntypes, sex?; Brazil: Nova Teutonia, Argentina: Misiones; Schedl Collection in NHMW, Wien, Viana, and Plaumann Collections.

Distribution: South America (Argentina/ Brazil).

Notes: (1) Schedl 1979c: 212 (citation of holotype invalid).

References: (hb) Viana 1964: 126. (ds) Viana 1964: 126. (tx) Schedl 1952a: 456, 1960h: 106, 1979c: 212; Wood, S. L. 1956a: 141.

stachi Nunberg 1958: 487. Holotype ♂; St. Catarina; IZW, Warsaw. Synonymy: Schedl 1960h: 106.

References: (tx) Nunberg 1958: 487; Schedl 1960h: 106.

ruber Wood 1956a: 142. Holotype ♂; 32 km NE Ciudad del Mais, San Luis Potosi, Mexico; SMUK, Lawrence.

Distribution: North America (San Luis Potosi in Mexico).

Hosts: *Robinia* sp.

References: (ds) Wood, S. L. 1982b: 622. (tx) de Rnette 1970: 102; Wood, S. L. 1956a: 142, 1982b: 622.

rudis (LeConte) 1876: 369 (*Micracis*). Holotype ♀?; Detroit, Michigan [USA]; MCZ, Cambridge. Figures: Atkinson 1959b: 328, Blackman 1920a: pl. 1, figs. 1–2 (female antenna), pl. 2, figs. 12–13, pl. 4, figs. 37–39, 1922b: pl. 7, fig. 35.

Distribution: North America (District of Columbia, Georgia, Kansas, Kentucky, Maryland, Michigan, New Jersey, Ohio, Pennsylvania, E Texas, Virginia in USA).

Hosts: *Carya* spp., *Castanea dentata*, *Fagus grandifolia*, *Quercus velutina*, *Ulmus americana*.

Notes: (3) Blackman 1920a: 20 (redescribed).

References: (cn) Blackman 1950; Doane et al. 1936; Packard 1890: 612. (ce) Felt 1906: 725. (hb) Baker, W. L. 1972: 252; Beal & Massey 1945: 95–97; Blackman 1950; Bright 1976d: 106; Chamberlin 1939: 258; Chittenden 1890; Doane et al. 1936; Deyrup & Atkinson 1987a: 65; Felt 1906: 725; Packard 1890: 612; Pierce, W. D. 1907: 292. (ds) Anonymous 1926c: 517; Atkinson 1959b: 327; Atkinson et al. 1991: 158; Beal & Massey 1945: 96–97; Blackman 1950; Blatchley & Leng 1916: 648; Bright 1976d: 106; Chamberlin 1939: 258; Chittenden 1890; Deyrup 1981b: 5; Deyrup & Atkinson 1987a: 65; Drooz 1985: 367; Hagedorn 1910d: 78; Hamilton 1895: 346, 378; Henshaw 1882: 269, 1885: 148; Hubbard & Schwarz 1878a: 666; Kirk 1970; Kleine 1913b: 145, 1914b: 401, 1934a: 165; Leng 1920: 339; Leonard 1928: 517; Swaine 1909: 127. (tx) Atkinson 1959b: 327, 328; Beal & Massey 1945: 96–97; Blackman 1920a: 19–22, 1922a: 145, 1922b: 65–67, 1928a: 186–187, 1943a: 345; Blatchley & Leng 1916: 648; Bright 1976d: 106; Chamberlin 1939: 258; Hagedorn 1910a: 117; LeConte 1876: 369; Lucas 1920: 411; Schwarz 1891: 74; Swaine 1909: 127, 1918a: 83; Wood, S. L. 1972a: 196, 1982b: 614. (ms) Lucas 1920: 411.

biorbis Blackman 1920a: 22 (*Micracis*). Holotype ♂; Syracuse, New York [USA]; USNM, Washington. Synonymy: Wood 1972e: 196.

References: (cn) Blackman 1950; Doane et al. 1936. (hb) Beal & Massey 1945: 97–98; Blackman 1950; Bright 1976d: 106; Chamberlin 1939: 258; Doane et al. 1936. (ds) Anonymous 1926c: 516; Beal & Massey 1945: 97–98; Blackman 1950; Bright 1976d: 106; Chamberlin 1939: 258; Hoffmann 1940: 60, 1942: 12; Kleine 1934a: 165; Leng & Mutchler 1927: 52; Leonard 1928: 516; Rhodes 1924: 150. (tx)

- Beal & Massey 1945: 97–98; Blackman 1920a: 22–23, 1922a: 145, 1922b: 68, 1924: 150–151, 1928a: 145, 186–188; Bright 1976d: 106; Chamberlin 1939: 258; Wood, S. L. 1972e: 196.
- schwarzi** Blackman 1928a: 189. Holotype ♂; Victoria, Texas [USA]; USNM, Washington.
Distribution: North America (W Texas in USA).
References: (hb) Chamberlin 1939: 260. (ds) Chamberlin 1939: 260; Leng & Mutchler 1933: 53; Wood, S. L. 1982b: 625. (tx) Blackman 1928a: 189; Chamberlin 1939: 260; Wood, S. L. 1982b: 625.
- scitulus** Wood 1984e: 116. Holotype ♂; Estacion de Biologia, Chamela, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: *Acacia* sp.
References: (cc) Equihua & Atkinson 1986: 628. (hb) Equihua & Atkinson 1986: 628. (ds) Atkinson & Equihua 1986: 625; Equihua & Atkinson 1986: 628. (tx) Wood, S. L. 1984e: 116.
- secus** Wood 1984e: 116. Holotype ♂; Estacion de Biologia, Chamela, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: Leguminosae.
References: (ec) Equihua & Atkinson 1986: 628. (hb) Equihua & Atkinson 1986: 628. (ds) Equihua & Atkinson 1986: 628. (tx) Wood, S. L. 1984e: 116.
- simplex** Blandford 1898b: 222. Holotype ♂; El Tumbador, San Marcos, Guatemala; BMNH, London.
Distribution: North America (Guatemala/Panama).
Hosts: *Inga* sp.
References: (hb) Wood, S. L. 1982b: 621. (ds) Blackwelder 1947: 784; Hagedorn 1910d: 78; Heqvist 1954: 9; Kleine 1913b: 145, 1914b: 370; Schedl 1977e: 42; Wood, S. L. 1982b: 621. (tx) Blandford 1898b: 222; Hagedorn 1910a: 119; Schedl 1958k: 144, 1960h: 106, 1979c: 230; Wood, S. L. 1982b: 621.
- singularis** Wood 1971: 31. Holotype ♀; 8 km SW Bumbum, Barinas, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
References: (tx) Wood, S. L. 1971: 31.
- spadix** Blackman 1928a: 188. Holotype ♀; Tryon, North Carolina [USA]; USNM, Washington.
Distribution: North America (North Carolina, Pennsylvania in USA).
Hosts: *Carya* sp.
References: (cn) Blackman 1950; Doane et al. 1936. (hb) Beal & Massey 1945: 97; Blackman 1950; Chamberlin 1939: 260; Doane et al. 1936. (ds) Beal & Massey 1945: 97; Blackman 1950; Chamberlin 1939: 260; Drooz 1985: 367; Kleine 1934a: 165; Leng & Mutchler 1933: 53; Wood, S. L. 1982b: 618. (tx) Beal & Massey 1945: 97; Blackman 1928a: 188; Chamberlin 1939: 260; Wood, S. L. 1982b: 618.
- spinifex** Blandford 1904: 225. Lectotype ♂; “Mexican” [actually Brazilian] tobacco refuse; BMNH, London, designated by Wood 1982b: 636.
Distribution: South America (Brazil).
References: (ds) Blackwelder 1947: 784; Ferrer 1942; Hagedorn 1910d: 78; Kleine 1913b: 145, 1914b: 352. (tx) Blandford 1904: 225; Hagedorn 1910a: 119; Schedl 1940a: 340; Wood, S. L. 1956a: 146, 1982b: 636.
- subgranulatus** Schedl 1954b: 31. Syntypes ♀; Brasilien, Matto Grosso, Rio Caraguata; Schedl Collection in NHMW, Wien, and Plaumann Collection.
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 241 (citation of holotype invalid).
References: (ds) Nunberg 1958a: 489; Schedl 1966g: 86, 1970e: 83, 1976a: 53. (tx) Nunberg 1958a: 489; Schedl 1954b: 31, 1979c: 241.
- torosus** Wood 1971: 28. Holotype ♀; Florence, South Carolina [USA]; Wood Collection.
Distribution: North America (Alabama, Illinois, Indiana, Maryland, North Carolina, South Carolina in USA).
Hosts: *Acer* sp., *Carya* sp., *Castanea dentata*, *Celtis* sp.
References: (bv) Roling & Kearby 1975b, 1977; Turnbow & Franklin 1980. (cn) Roling & Kearby 1977. (cc) Roling & Kearby 1977. (ds) Deyrup & Atkinson 1986: 628; Turnbow & Franklin 1980; Wood, S. L. 1982b: 615. (tx) Wood, S. L. 1971: 28, 1982b: 615.
- trispinatus** Schedl 1978c: 301. Holotype ♂; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1978c: 301.
- vagabundus** Blandford 1898b: 224. Holotype ♀; Mexican [actually Brazilian] tobacco refuse; BMNH, London.
Distribution: South America (Brazil).
References: (cc) Wichmann 1955a: 107. (ds) Blackwelder 1947: 784; Ferrer 1942; Hagedorn 1910a: 78; Kleine 1913b: 145, 1914b: 336, 352; Wichmann 1955a: 107. (tx) Blandford 1898b: 224; Hagedorn 1910a: 119; Schedl 1940a: 340.
- verrucosus** Wood 1971: 28. Holotype ♂; 9 km S Barrancas, Barinas, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Inga* sp.
References: (tx) Wood, S. L. 1971: 28.
- vianai** Schedl 1952a: 457. Syntypes, sex?; Argentina, Buenos Aires, Tigre; Schedl Collection in NHMW, Wien, and Viana Collection.
Distribution: South America (Argentina).

Notes: (1) Schedl 1979c: 267 (citation of holotype invalid).

References: (hb) Viana 1964: 126. (ds) Viana 1964: 126. (tx) Schedl 1952a: 457, 1958f: 34, 1979c: 267.

villifrons Wood 1971: 30. Holotype ♀; Rancho Grande, Pittier National Park, Aragua, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Guttiferae sp.

References: (tx) Wood, S. L. 1971: 30–31.

Genus *Phloeocurus* Wood

PHLOEOCURUS WOOD 1984b: 230. Type-species:

Hylocurus africanus Schedl, original designation.

References: (hb) Wood, S. L. 1986a: 65. (ds)

Wood, S. L. 1986a: 65. (tx) Wood, S. L. 1984b: 230, 1986a: 65.

africanus (Schedl) 1957e: 875 (*Hylocurus*). Holotype ♀; Kenya, Kampi ya Moto; BMNH, London. Distribution: Africa (Kenya).

Hosts: *Acacia xanthophylla*.

References: (ds) Schedl 1962j: 34, 1975k: 277.

(tx) Schedl 1957e: 875, 1962j: 34, 1979c: 14;

Wood, S. L. 1984b: 230.

Genus *Pseudomicracis* Eggers

PSEUDOMICRACIS EGGERS 1920: 36. Type-species:

Pseudomicracis elsae Eggers, monobasic.

References: (hb) Wood, S. L. 1986a: 65. (ds)

Wood, S. L. 1986a: 65. (tx) Eggers 1920: 36;

Schedl 1962j: 51; Wood, S. L. 1986a: 65.

bugeakeae (Schedl) 1957d: 69 (*Hylocurus*). Holotype, sex?; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Carpodinus subrepanda*, *Hypericum lanceolatum*.

References: (hb) Schedl 1962j: 34. (ds) Schedl

1962j: 34. (tx) Schedl 1957d: 69, 1957e: 875,

1962j: 34–35, 69, 1979c: 49.

camerunus (Hagedorn) 1909a: 743 (*Araptus*). Holotype, sex?; Kamerun; Hamburg Museum, lost.

Distribution: Africa (Cameroon).

References: (ds) Hagedorn 1910d: 77; Kleine

1913b: 145, 1914b: 310. (tx) Hagedorn 1909a:

743, 1910a: 111; Schedl 1962j: 28–29.

difficilis (Schedl) 1965c: 64 (*Micracis*). Holotype ♂; Madagascar, Perinet; Schedl Collection in NHMW, Wien.

Distribution: Madagascar.

References: (tx) Schedl 1965c: 64, 1977b: 124,

1979c: 80.

elsae Eggers 1920: 36. Holotype ♀?; Dares-Salaam, Ostafrika; Hamburg Museum, lost.

Distribution: Africa (Tanzania).

References: (tx) Eggers 1920: 36; Schedl 1962j:

52.

harunganae (Schedl) 1961e: 140 (*Micracis*). Holotype ♀; Madagascar, Perinet and Ambila; IRSM, Madagascar.

Distribution: Madagascar.

Hosts: *Harungana madagascariensis*.

References: (hb) Schedl 1977b: 123. (ds) Schedl

1977b: 124. (tx) Schedl 1961e: 140, 1977b: 124,

1979c: 115.

ignotus (Schedl) 1965c: 62 (*Micracis*). Holotype, sex?; Madagascar, Montagne d'Ambre; IRSM, Madagascar.

Distribution: Madagascar.

References: (tx) Schedl 1965c: 62, 1977b: 125,

1979c: 120.

madagascariensis (Schedl) 1961e: 139 (*Micracis*). Holotype ♀; Madagascar, Perinet; IRSM, Madagascar.

Distribution: Madagascar.

References: (hb) Schedl 1977b: 125. (ds) Schedl

1977b: 125. (tx) Schedl 1961e: 139, 1977b: 125,

1979c: 144.

pennatus (Schedl) 1965c: 63 (*Micracis*). Holotype ♂; Madagascar, Sandrangato; IRSM, Madagascar.

Distribution: Madagascar.

References: (tx) Schedl 1965c: 63, 1977b: 125,

1979c: 187.

Genus *Micracisella* Blackman

MICRACISELLA BLACKMAN 1928a: 192. Type-species:

Micracis opacicollis LeConte, automatic.

Pseudomicracis Blackman 1920a: 20. Type-species: *Micracis opacicollis* LeConte, original designation, preoccupied by Eggers 1920.

References: (tx) Blackman 1920a: 20, 1922a:

66, 1928a: 192.

Keys: Wood 1982b: 594.

References: (hb) Wood, S. L. 1986a: 65. (ds)

Wood, S. L. 1986a: 65. (tx) Beal & Massey 1945:

59, 99; Blackman 1920b, 1928a: 192, 1943a: 341–

342, 350; Wood, S. L. 1956c: 231–232, 1982b:

594–608, 1986a: 65.

adnata Wood 1971: 24. Holotype ♀; 14 km E Huatusco, Veracruz, Mexico; Wood Collection.

Distribution: North America (Veracruz in Mexico).

Hosts: *Quercus* sp.

References: (ds) Wood, S. L. 1982b: 597. (tx)

Wood, S. L. 1971: 24–25, 1982b: 597.

divaricata Wood 1969b: 39. Holotype ♀; 2 km N Cerro Gordo, Veracruz, Mexico; Wood Collection.

Distribution: North America (Morelos, Veracruz in Mexico).

Hosts: *Serjania* sp.

References: (hb) Atkinson et al. 1986: 58; Burgos

& Saucedo 1983: 90. (ds) Atkinson et al. 1986: 58;

Burgos & Saucedo 1983: 90; Wood, S. L. 1969b:

39, 1982b: 608. (tx) Wood, S. L. 1969b: 39, 1982b:

608.

- hondurensis** Wood 1956b: 233. Holotype ♀; Olanchito, Yoro, Honduras; Wood Collection.
Distribution: North America (Chiapas in Mexico/ Honduras).
Hosts: Shrub.
References: (ds) Wood, S. L. 1982b: 602. (tx) Wood, S. L. 1956b: 233, 1969b: 36, 1982b: 602.
- knulli (Blackman)** 1943a: 348 (*Micracis*). Holotype ♀; Huachuca Mountains, Arizona [USA]; USNM, Washington.
Figures: Blackman 1943a: figs. 5–6.
Distribution: North America (Hidalgo, Michoacan in Mexico/ Arizona in USA).
Hosts: *Quercus* spp., *Salix* sp.
References: (ds) Blackwelder & Blackwelder 1948; Furniss, R. L. & Carolin 1977: 382; Wood, S. L. 1959a: 61, 1982b: 599. (tx) Blackman 1943a: 348; Wood, S. L. 1956b: 231, 1959a: 61, 1959b: 2, 1982b: 599.
- mimetica** Wood 1974a: 15. Holotype ♂; 5 km N Suchixtepec on Highway 175, Oaxaca, Mexico; CNCI, Ottawa.
Distribution: North America (Oaxaca in Mexico).
Hosts: Mistletoe on *Quercus* sp.
References: (ds) Wood, S. L. 1982b: 599. (tx) McNamara 1984: 753; Wood, S. L. 1974a: 15, 1982b: 599.
- monadis** Wood 1969b: 36. Holotype ♀; Volcan Colima, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: *Struthanthus venetus*.
References: (ds) Wood, S. L. 1982b: 604. (tx) Wood, S. L. 1969b: 36–37, 1982b: 604.
- nanula (LeConte)** 1876: 368 (*Micracis*). Holotype ♀; Haulover, Florida [USA]; MCZ, Cambridge.
Distribution: Antilles Islands (Bahamas Islands), North America (Florida, Georgia, Louisiana, Mississippi, South Carolina, Texas in USA).
Hosts: *Acras sapota*, *Conocarpus erecta*, *Dipholia salicifolia*, *Mimosa* sp., *Pithecellobium guadeloupense*, *Prosopis* sp., *Quercus* sp., *Rhizophora mangle*, *Vitis* sp.
Notes: (3) Blackman 1920a: 34 (redescribed).
References: (bv) Atkinson, Foltz, & Connor 1988; Roling & Kearby 1975b, 1977. (cn) Blackman 1950; Doane et al. 1936; Roling & Kearby 1977. (ec) Roling & Kearby 1977. (hb) Atkinson, Foltz, & Connor 1988; Deyrup & Atkinson 1987a: 65. (ds) Blackman 1950; Blatchley & Leng 1916: 648; Bright 1985c: 172; Chamberlin 1939: 255; Deyrup & Atkinson 1987a: 65; Hagedorn 1910d: 78; Henshaw 1882: 269, 1885: 148; Kirk 1969, 1970; Kleine 1913b: 145, 1914b: 384, 1934a: 166; Leng 1920: 339; Schwarz 1878d: 469; Swaine 1909: 127; Wood, S. L. 1982b: 602. (tx) Blackman 1922a: 144–145, 1922b: 34–35, 1928a: 192, 197, 1943a: 350; Blatchley & Leng 1916: 648; Bright 1985c: 172; Chamberlin 1939: 255; Hagedorn 1910a: 117; LeConte 1876: 368, 1878a: 469; Schedl 1940a: 340; Schwarz 1878: 469; Swaine 1909: 127; Wood, S. L. 1982b: 602.
- nigra** Wood 1956b: 232. Holotype ♀; La Ceiba, Atlantida, Honduras; Wood Collection.
Distribution: North America (Honduras), South America (Colombia).
References: (ds) Estrada & Atkinson 1988: 205; Wood, S. L. 1961c: 1, 1982b: 607. (tx) Wood, S. L. 1956b: 232, 1961c: 1, 1969b: 37, 1982b: 607.
- nigrella** Wood 1969b: 37. Holotype ♀; Volcan de Agua, Esquintla, Guatemala; Wood Collection.
Distribution: North America (Guatemala).
Hosts: *Rhus* sp.
References: (ds) Wood, S. L. 1982b: 607. (tx) Wood, S. L. 1969b: 37–38, 1982b: 607.
- nitidula** Wood 1969b: 37. Holotype ♀; 10 km NE Teziutlan, Puebla, Mexico; Wood Collection.
Figures: Atkinson et al. 1986: 28 (adult).
Distribution: North America (Chiapas, Michoacan, Oaxaca, Puebla in Mexico).
Hosts: *Arbutus* sp., *Rubus* sp.
References: (hb) Atkinson et al. 1986: 27; Burgos & Saucedo 1983: 90. (ds) Atkinson & Equihua 1985a: 83, 1985b: 234; Atkinson et al. 1986: 29; Burgos & Saucedo 1983: 90; Wood, S. L. 1982b: 601. (tx) Atkinson et al. 1986: 28; Muskus, A. 1984: 85; Wood, S. L. 1969b: 37, 1982b: 601.
- ocellata** Wood 1974a: 16. Holotype ♂; 5 km N Suchixtepec on Highway 175, Oaxaca, Mexico; CNCI, Ottawa.
Distribution: North America (Oaxaca in Mexico).
Hosts: *Arbutus* sp.
References: (ds) Wood, S. L. 1982b: 600. (tx) McNamara 1984: 753; Wood, S. L. 1974a: 16, 1982b: 600.
- opacicolis (LeConte)** 1878b: 625 (*Micracis*). Holotype ♀; Detroit, Michigan [USA]; MCZ, Cambridge.
Figures: Blackman 1920a: pl. 1, fig. 11 (female antenna), pl. 2, fig. 22.
Distribution: North America (District of Columbia, Illinois, Kansas, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Virginia, West Virginia in USA).
Hosts: *Carya* sp., *Castanea dentata*, *Hamamelis virginiana*, *Quercus alba*, *Q. falcata*.
Notes: (3) Blackman 1920a: 33 (redescribed).
References: (bv) Turnbow & Franklin 1980. (cn) Blackman 1950; Doane et al. 1936; Felt 1906: 702; Smith, J. B. 1900: 363. (hb) Baker, W. L. 1972: 253; Beal & Massey 1945: 94–100; Blackman 1922b: 70–71, 1950; Bright 1976d: 108; Chamberlin 1939: 254; Doane et al. 1936. (ds) Anonymous 1926c: 517; Beal & Massey 1945: 94–100; Blackman 1922b: 70–71, 1950; Blatchley & Leng 1916: 648; Bright 1976d: 108; Chamberlin 1939: 254; Dodge 1938; Drooz 1985: 367; Hagedorn 1910d: 78; Henshaw 1882: 269, 1885: 148; Hoffmann

1942: 12; Hubbard & Schwarz 1878a: 666, 1878b: 625; Kleine 1913b: 145, 1914b: 398, 1934a: 166; Knull 1932: 66; Leng 1920: 339; Leonard 1928: 57; Smith, J. B. 1900: 363, 1910: 403; Swaine 1909: 127; Turnbow & Franklin 1980: Ulke 1902: 56; Weber, B. C. & McPherson 1991: 54; Wood, S. L. 1982b: 603. **(tx)** Beal & Massey 1945: 94–100; Blackman 1920a: 33–34, 1922a: 144–145, 1922b: 70–71, 1928a: 3–6, 197, 1943a: 350; Blatchley & Leng 1916: 645; Bright 1976d: 108; Chamberlin 1939: 254; Dodge 1938: 32, 34; Hagedorn 1910a: 117; LeConte 1878b: 625; Nunberg 1956: 138; Schedl 1940a: 340; Swaine 1909: 127, 1918a: 83; Wood, S. L. 1982b: 603.

asperulus LeConte 1878b: 626 (*Micracis*). Lectotype ♀; Detroit [USA]; MCZ, Cambridge, designated by Wood 1982b: 603. Synonymy: Blackman 1928a: 196.

References: **(cn)** Smith, J. B. 1900: 363. **(ds)** Anonymous 1926c: 517; Blackman 1920a: 8–9, 34, 1922b: 70, 1928a: 196–197, 1943a: 350; Hagedorn 1910d: 78; Henshaw 1882: 269; LeConte 1878b: 626; Leng 1920: 339; Leonard 1928: 517; Notman 1920: 184; Smith, J. B. 1900: 363, 1910: 403; Swaine 1909: 127. **(tx)** Blackman 1928a: 196; LeConte 1878b: 626; Wood, S. L. 1982b: 603.

opacithorax (Schedl) 1940a: 340 (*Micracis*). Lectotype ♀; Mexico: Temulipez: Metamores: Verencez: Carde; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 179.

Distribution: North America (Tamaulipas, Veracruz in Mexico/ W Texas in USA).

Hosts: *Mimosa* sp., *Prosopis* sp.

References: **(ds)** Blackwelder 1947: 784; Ferrer 1942; Schedl 1963c: 158; Wood, S. L. 1982b: 603. **(tx)** Blackman 1943a: 350; Schedl 1940a: 340, 1979c: 179; Wood, S. L. 1956b: 233, 1982b: 603.

scitula Wood 1969b: 37. Holotype ♂; 14 km E Huatusco, Veracruz, Mexico; Wood Collection.

Distribution: North America (Veracruz in Mexico).

Hosts: *Quercus* sp.

References: **(ds)** Wood, S. L. 1982b: 601. **(tx)** Wood, S. L. 1969b: 37, 1982b: 601.

serjaniae Wood 1971: 25. Holotype ♀; Zamorano, Morazan, Honduras; Wood Collection.

Distribution: North America (Honduras).

Hosts: *Serjania racemosa*.

References: **(ds)** Wood, S. L. 1982b: 604. **(tx)** Wood, S. L. 1971: 25, 1982b: 604.

similis Wood 1969b: 38. Holotype ♀; Volcan Ceboruco, Nayarit, Mexico; Wood Collection.

Distribution: North America (Nayarit in Mexico).

Hosts: *Serjania* sp.

References: **(ds)** Wood, S. L. 1982b: 605. **(tx)** Wood, S. L. 1969b: 38, 1982b: 605.

squamatula Wood 1969b: 38. Holotype ♀; 10 km S Huajuapán, Oaxaca, Mexico; Wood Collection.

Distribution: North America (Oaxaca, Puebla in Mexico).

Hosts: *Serjania* sp.

References: **(ds)** Wood, S. L. 1982b: 606. **(tx)** Wood, S. L. 1969b: 38, 1982b: 606.

striata Wood 1956b: 231. Holotype ♀; Olanchito, Yoro, Honduras; Wood Collection.

Distribution: North America (Honduras/ Oaxaca in Mexico).

Hosts: *Serjania* sp. and other lianas.

References: **(ds)** Wood, S. L. 1982b: 604. **(tx)** Wood, S. L. 1956b: 231, 1982b: 604.

subnitida Blackman 1943a: 350. Holotype ♂; Santa Rica Mts., Arizona [USA]; USNM, Washington. Figures: Blackman 1943a: figs. 7–8.

Distribution: North America (Arizona, New Mexico in USA).

References: **(ds)** Blackwelder & Blackwelder 1948; Furniss, R. L. & Carolin 1977: 353; Wood, S. L. 1982b: 597. **(tx)** Blackman 1943a: 350; Wood, S. L. 1982b: 597.

rescula Wood 1969b: 38. Holotype ♀; 2 km N Cerro Gordo, Veracruz, Mexico; Wood Collection.

Distribution: North America (Veracruz in Mexico).

Hosts: *Serjania* sp.

References: **(ds)** Wood, S. L. 1982b: 606. **(tx)** Wood, S. L. 1969b: 38, 1982b: 606.

Genus *Micracis* LeConte

MICRACIS LECONTE 1868: 164. Type-species: *Micracis suturalis* LeConte, subsequent designation by Hopkins 1914: 125.

Keys: Wood 1982b: 579.

References: **(ay)** Nobuchi 1969a: 54. **(hb)** Wood, S. L. 1986a: 65. **(ds)** Wood, S. L. 1986a: 65. **(tx)** Beal & Massey 1945: 48, 51, 59, 98–99; Blackman 1920a: 5–20, 1922a: 143–145, 1922b: 65–66, 1928a: 192, 1943a: 341–342, 346, 1950: 295, 299, 324–326; Blandford 1898b: 219–220; Blatchley & Leng 1916: 581, 584, 646; Blackwelder 1947: 784; Bright 1978: 107; Chamberlin 1939: 249–252, 1958: 120–121; Dodge 1938: 17, 33; Eichhoff 1878b: 35, 57, 302; Hagedorn 1910a: 116–117, 1910d: 78; Hopkins 1914: 125–136; 1915c: 184–195, 204–205; LeConte 1868: 164, 1876: 368; LeConte & Horn 1883: 519; Schedl 1940a: 340, 1961e: 139, 1962p: 206, 1977b: 122; Swaine 1918a: 44, 83; Wood, S. L. 1961a: 45, 1982b: 578–594, 1986a: 65.

acutipennis Eichhoff 1878b: 302. Holotype ♂; America meridionalis (Bahia); IRSNB, Brussels. Distribution: South America (Brazil).

References: **(ds)** Blackwelder 1947: 784; Hagedorn 1910d: 78; Kleine 1913b: 145. **(tx)** Eichhoff 1878b: 302; Hagedorn 1910a: 117; Nunberg 1936: 139.

amplinis Wood 1971: 25. Holotype ♂; 5 km W El Salto, Durango, Mexico; Wood Collection.

Figures: Atkinson et al. 1986: 28 (adult).

- Distribution: North America (Durango, Hidalgo, Morelos in Mexico).
Hosts: *Quercus* sp.
References: (hb) Atkinson et al. 1986: 27; Burgos & Saucedo 1983: 86. (ds) Atkinson & Equihua 1985a: 83, 1985b: 234; Atkinson et al. 1986: 27; Burgos & Saucedo 1983: 86; Wood, S. L. 1982b: 583. (tx) Atkinson et al. 1986: 28; Wood, S. L. 1971: 25, 1982b: 583.
- burgosi Wood** 1982a: 228. Holotype ♂; Cuernavaca, Morelos, Mexico; Wood Collection.
Figures: Burgos & Saucedo 1983: 89.
Distribution: North America (Morelos in Mexico).
Hosts: *Delonix regia*.
References: (hb) Atkinson et al. 1986: 58; Burgos & Saucedo 1983: 87. (ds) Atkinson & Equihua 1985b: 234; Atkinson et al. 1986: 58; Burgos & Saucedo 1983: 87. (tx) Burgos & Saucedo 1983: 28, 89; Wood, S. L. 1982a: 228.
- carinulatus Wood** 1960b: 62. Holotype ♀; Cave Creek Canyon, Chiricahua Mts., Arizona [USA]; Wood Collection.
Distribution: North America (Arizona in USA).
Hosts: *Salix* sp.
References: (ds) Furniss, R. L. & Carolin 1977: 382; Wood, S. L. 1982b: 593. (tx) Wood, S. L. 1960b: 62, 1969b: 39, 1982b: 593.
- carinulus Wood** 1969b: 40. Holotype ♀; Playon, Puntarenas Prov., Costa Rica; Wood Collection.
Distribution: North America (Costa Rica/ Panama).
Hosts: *Rhedia edulis*.
References: (hb) Wood, S. L. 1982b: 590. (ds) Wood, S. L. 1982b: 590. (tx) Wood, S. L. 1969b: 40, 1982b: 590.
- cubensis Blackman** 1928a: 193. Holotype ♀; Cayanas, Cuba; USNM, Washington.
Distribution: Antilles Islands (Cuba).
Hosts: *Juccaro amarillo*.
References: (ds) Blackwelder 1947; Bright 1985c: 172; Kleine 1934a: 165. (tx) Blackman 1928a: 193; Bright 1985c: 172; Wood, S. L. 1956a: 149.
- detentus Wood** 1969b: 42. Holotype ♀; 24 km S Mazamitla, Jalisco, Mexico; Wood Collection.
Distribution: North America (Chiapas, Chihuahua, Jalisco in Mexico).
Hosts: *Salix* sp., etc.
References: (hb) Atkinson et al. 1986: 27, 58. (ds) Atkinson et al. 1986: 27, 58; Wood, S. L. 1982b: 589. (tx) Wood, S. L. 1969b: 42, 1982b: 589.
- evanescens Wood** 1956a: 152. Holotype ♀; 48 km SW El Salto, Durango, Mexico; SMUK, Lawrence.
Distribution: North America (Durango, Michoacan, Oaxaca, Sinaloa in Mexico).
Hosts: *Quercus* spp.
References: (hb) Atkinson et al. 1986: 27; Burgos & Saucedo 1983: 96. (ds) Atkinson et al. 1986: 27; Burgos & Saucedo 1983: 86; Thomas, J. B. 1966; Wood, S. L. 1982b: 586. (tx) de Ruelle 1970: 104; Wood, S. L. 1956a: 152, 1969b: 42, 1982b: 586.
- exilis Wood** 1971: 27. Holotype ♀; 9 km S Barrancas, Barinas, Venezuela; Wood Collection.
Distribution: South America (Venezuela).
Hosts: *Acalypha* sp. and Espinito de Sabana.
References: (tx) Wood, S. L. 1971: 27.
- festivus Wood** 1969b: 43. Holotype ♀; Zamorano, Morazan, Honduras; Wood Collection.
Distribution: North America (Chiapas, Veracruz in Mexico/ Honduras).
Hosts: *Calliandra houstoniana*, *Celtis iguanae*.
References: (ds) Atkinson & Equihua 1988: 92; Wood, S. L. 1982b: 592. (tx) Wood, S. L. 1969b: 43, 1982b: 592.
- grandis Schedl** 1948h: 575. Holotype ♀; Mexico, Chiapas, San Jose de Itepec; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica/ Honduras/ Chiapas in Mexico).
Hosts: *Calliandra confusa*, *Salix guatemalensis*.
References: (ds) Wood, S. L. 1982b: 588. (tx) Schedl 1948h: 575, 1979c: 109; Wood, S. L. 1974d: 283, 1982b: 588.
- costaricensis Wood** 1969b: 39. Holotype ♀; Volcan Poas, Heredia Prov., Costa Rica; Wood Collection. Synonymy: Wood 1974d: 283.
References: (tx) Wood, S. L. 1969b: 39, 1974d: 283.
- incertus Wood** 1971: 26. Holotype ♀; 37 km W Durango, Durango, Mexico, 2000 m; Wood Collection.
Distribution: North America (Durango in Mexico).
Hosts: *Quercus* sp.
References: (ds) Wood, S. L. 1982b: 584. (tx) Wood, S. L. 1971: 26, 1982b: 584.
- inimicus Wood** 1969b: 42. Holotype ♀; Volcan de Agua, Esquintla, Guatemala; Wood Collection.
Distribution: North America (Guatemala).
Hosts: Shrub.
References: (ds) Wood, S. L. 1982b: 591. (tx) Wood, S. L. 1969b: 42–43, 1982b: 591.
- lepidus Wood** 1969b: 41. Holotype ♀; Cerro Punta Chiriqui, Panama; Wood Collection.
Distribution: North America (Panama).
Hosts: *Luga* sp.
References: (hb) Wood, S. L. 1982b: 584. (ds) Wood, S. L. 1982b: 584. (tx) Wood, S. L. 1969b: 41, 1982b: 584.
- lignator Blackman** 1928a: 195. Holotype ♀; Tucson, Arizona [USA]; USNM, Washington.
Distribution: North America (Durango, Hidalgo, Oaxaca, Queretaro, Tlaxcala in Mexico/ Arizona in USA).
Hosts: *Quercus* spp.
References: (cn) Doane et al. 1936. (hb) Atkinson

- et al. 1986: 27; Burgos & Saucedo 1983: 85; Chamberlin 1939: 254; Doane et al. 1936. (**ds**) Atkinson & Equilma 1985a: 83; Atkinson et al. 1986: 27; Burgos & Saucedo 1983: 85; Chamberlin 1939: 254; Furniss, R. L. & Carolin 1977: 382; Kleine 1934a: 164; Leng & Mutchler 1933: 53; Wood, S. L. 1959a: 60, 1982b: 582. (**tx**) Blackman 1928a: 195–198, 1943a: 348; Chamberlin 1939: 254; Wood, S. L. 1959a: 60, 1969b: 41, 1973c: 178, 1982b: 582.
- truncatus* Wood 1956a: 152. Holotype ♀; 17 km NE Jacala, Hidalgo, Mexico; SMUK, Lawrence. Synonymy: Wood 1973c: 178. References: (**ds**) Wood, S. L. 1959a: 60. (**tx**) de Ruette 1970: 104; Wood, S. L. 1956a: 152, 1959a: 60, 1973c: 178.
- lignicolus* Wood** 1969b: 41. Holotype ♂; Cerro Pena Blanca, Honduras; Wood Collection. Distribution: North America (Guatemala/ Honduras/ Chiapas in Mexico). Hosts: *Miconia schlectendalii*, *Quercus sapotaefolia*, *Q. williamsii*. References: (**ds**) Wood, S. L. 1982b: 582. (**tx**) Wood, S. L. 1969b: 41, 1982b: 582.
- longula* Nunberg** 1956a: 135. Holotype ♀?; Brazil, Badenfurt; IZW, Warsaw. Distribution: South America (Brazil). References: (**tx**) Nunberg 1956a: 135.
- ovatus* Wood** 1956a: 150. Holotype ♀; 8 km NE Teziutlan, Puebla, Mexico; SMUK, Lawrence. Distribution: North America (Puebla in Mexico). References: (**hb**) Wood, S. L. 1982b: 586. (**ds**) Wood, S. L. 1982b: 586. (**tx**) de Ruette 1970: 104; Wood, S. L. 1956a: 150, 1982b: 586.
- sentus* Wood** 1971: 28. Holotype ♂; El Laurel Experimental Farm, 12 km SW Caracas, Venezuela; Wood Collection. Distribution: South America (Venezuela). References: (**tx**) Wood, S. L. 1971: 28.
- suturalis* LeConte** 1868: 165. Lectotype ♀; Illinois [USA]; MCZ, Cambridge, designated by Wood 1973c: 179. Figures: Blackman 1922b: pl. 7, figs. 37–38. Distribution: North America (Illinois, E Kansas, Louisiana, Maryland, Michigan, Mississippi, New York, Ohio, Pennsylvania, Virginia, West Virginia in USA). Hosts: *Cercis canadensis*. References: (**cn**) Blackman 1950; Doane et al. 1936; Finnegan 1954: 312; Packard 1890: 660; Smith, J. B. 1900: 363. (**hb**) Baker, W. L. 1972: 253; Blackman 1950; Bright 1976d: 107; Chamberlin 1939: 252; Chittenden 1893a; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Hamilton 1891: 65; Kirkendall 1984: 238; Pierce, W. D. 1907: 292; Riley 1891a: 131, 1892b: 268. (**ds**) Anonymous 1926c: 517; Blackman 1950; Blatchley & Leng 1916: 647; Bright 1976d: 107; Britton 1920a; Chamberlin 1939: 252; Deyrup 1981b: 5; Deyrup & Atkinson 1987a: 65; Frost & Dietrich 1929; Gemminger & Harold 1872: 2692; Hagedorn 1910d: 78; Hamilton 1891: 65, 1895a: 148; Henshaw 1882: 269, 1885: 148; Hoffmann 1942: 12; Hubbard & Schwarz 1878a: 666; Kleine 1913b: 145, 1934a: 165; Leng 1920: 339; Leonard 1928: 517; Packard 1890: 660; Riley 1891a: 131; Shimer 1869: 7–8; Smith, J. B. 1900: 363, 1910: 403; Swaine 1909: 127; Ulke 1902: 56; Wood, S. L. 1982b: 591. (**tx**) Anonymous 1891: 94; Blackman 1920a: 28–29, 1922a: 144–145, 1922b: 69, 1928a: 192–195; Blatchley & Leng 1916: 647; Bright 1976d: 107; Chamberlin 1939: 252; Eichhoff 1878b: 303; Hagedorn 1910a: 117; Hamilton 1891: 131, 1892: Hopkins 1914: 125, 1915c: 186; LeConte 1868: 164–165, 1876: 368; Nunberg 1956: 138; Schedl 1948h: 575; Swaine 1909: 127, 1918a: 40, 1920a: 31; Wood, S. L. 1960b: 62, 1973c: 179, 1982b: 591. (**ms**) Essig 1931: 685.
- aculeatus* LeConte** 1868: 165. Lectotype ♂; southern States [USA]; MCZ, Cambridge, designated by Wood 1982b: 591. Synonymy: Chittenden 1893: 394; Blackman 1920a: 29. References: (**hb**) Chittenden 1893: 394; Felt 1906: 715; Hamilton 1891: 65, 1892: 268; Riley 1891a: 131, 1891b: 94, 1892b: 268. (**ds**) Gemminger & Harold 1872: 2692; Hagedorn 1910d: 78; Henshaw 1882: 269, 1885: 148; Kleine 1913b: 145; Leng 1920: 339; Riley 1891a: 131; Swaine 1909: 127. (**tx**) Anonymous 1891: 94; Blackman 1920a: 29, 1928a: 194–195, 1943a: 348; Eichhoff 1878b: 304; Hagedorn 1910a: 117; LeConte 1868: 164, 1876: 368, 1881: 22; Lucas 1920: 411; Swaine 1909: 127–128. (**ms**) Lucas 1920: 411.
- meridianus* Blackman** 1920a: 29. Lectotype ♀; Agricultural College [Starkville], Mississippi [USA]; USNM, Washington, designated by Wood 1973c: 179. Synonymy: Wood 1973c: 179. References: (**cn**) Blackman 1950; Doane et al. 1936. (**hb**) Blackman 1922b, 1950; Chamberlin 1939: 253; Doane et al. 1936. (**ds**) Blackman 1922b, 1950; Chamberlin 1939: 253; Kleine 1934a: 165; Leng & Mutchler 1927: 52. (**tx**) Blackman 1920a: 29, 1922a: 145, 1922b: 69–70; Chamberlin 1939: 253; Wood, S. L. 1973c: 179.
- swainei* Blackman** 1920a: 32. Lectotype ♀; Iuka, Mississippi [USA]; USNM, Washington, designated by Wood 1973c: 178. Figures: Blackman 1920a: pl. 1, figs. 9–10, 1922b: pl. 7, fig. 36, Bright 1976d: 202, 209. Distribution: Antilles Islands (Cuba), North America (Ontario in Canada/ Honduras/ Chiapas, Jalisco, Nayarit, San Luis Potosi, Sinaloa, Vera Cruz in Mexico/ S California, District of Columbia, Florida, Georgia, E Kansas, Louisiana, Maryland, Mississippi, New York, Pennsylvania, Tennessee, Texas, West Virginia in USA).

Hosts: *Baccharus* sp., *Celtis iguanae*, *Cercis canadensis*, *Inga* sp., *Miconia* sp., *Populus* sp., *Salix* spp., *Trichilia arborea*, ect.

Notes: (3) Schedl 1948h: 576 (*mexicanus*, nomen nudum).

References: (cn) Blackman 1950; Doane et al. 1936. (ec) Bushing 1965: 462. (hb) Baker, W. L. 1972: 253; Beal & Massey 1945: 48; Blackman 1922b: 66, 1950; Bright 1976d: 107; Bright & Stark 1973: 65; Burgos & Saucedo 1983: 87; Chamberlin 1939: 255; Deyrup & Atkinson 1987a: 65; Doane et al. 1936. (ds) Beal & Massey 1945: 48; Blackman 1922b: 66, 1950; Bright 1976d: 107, 1981c: 155, 1985c: 172; Bright & Stark 1973: 65; Burgos & Saucedo 1983: 87; Chamberlin 1939: 255; Deyrup 1981b: 5; Deyrup & Atkinson 1987a: 65; Dodge 1938; Drooz 1985: 366; Estrada & Atkinson 1988: 205; Kleine 1934a: 165; Leng & Mutchler 1927: 52; Wood, S. L. 1957c: 399, 1982b: 558. (tx) Beal & Massey 1945: 48; Blackman 1920a: 32, 1922a: 145, 1922b: 66, 1928a; Bright 1976d: 107, 202, 209, 1985c: 172; Chamberlin 1939: 255; Dodge 1938: 16, 33; Nunberg 1954: 138; de Ruelle 1970: 104; Wood, S. L. 1957c: 399, 1973c: 178, 1974d: 283, 1982b: 558. *populi* Blackman 1920a: 31. Holotype ♀; Ithaca, New York [USA]; CNCI, Ottawa. Synonymy: Wood 1957c: 399.

References: (cn) Blackman 1950; Doane et al. 1936. (hb) Blackman 1950; Chamberlin 1939: 254; Doane et al. 1936. (ds) Anonymous 1926c: 517; Blackman 1950; Chamberlin 1939: 254; Kleine 1934a: 165; Leng & Mutchler 1927: 52; Leonard 1927: 517. (tx) Blackman 1920a: 31, 1922a: 145, 1928a; Bright 1967b: 676; Chamberlin 1939: 254; Nunberg 1956: 158; de Ruelle 1970: 104; Swaine 1920a: 31; Wood, S. L. 1957c: 399.

robustus Schedl 1948h: 576. Holotype ♂; Mexico, Esmeralda, Chiapas; Schedl Collection in NHMW, Wien. Synonymy: Wood 1974d: 283.

References: (tx) Schedl 1948h: 576, 1979c: 212; Wood, S. L. 1974d: 283.

pygmaeus Schedl 1948h: 577. Holotype ♂; Mexico, Chiapas [Huehuetan]; Schedl Collection in NHMW, Wien. Synonymy: Wood 1974d: 283.

References: (tx) Schedl 1948h: 577, 1979c: 209; Wood, S. L. 1974d: 283.

photophilus Wood 1956a: 149. Holotype ♀; El Salto, San Luis Potosi, Mexico; SMUK, Lawrence. Synonymy: Wood 1973c: 178.

References: (tx) Wood, S. L. 1956a: 149, 1973c: 178.

torus Wood 1971: 26. Holotype ♀; Volcan Colima, Jalisco, Mexico; Wood Collection.

Distribution: North America (Jalisco in Mexico). Hosts: Leguminous tree.

References: (hb) Wood, S. L. 1982b: 585. (ds) Wood, S. L. 1982b: 585. (tx) Wood, S. L. 1971: 26–27, 1982b: 585.

tribulatus Wood 1969b: 40. Holotype ♀; 26 km W Texmelucan, Puebla, Mexico; Wood Collection.

Distribution: North America (Puebla in Mexico). Hosts: *Salix* sp.

References: (ds) Wood, S. L. 1982b: 593. (tx) Wood, S. L. 1969b: 40, 1982b: 593.

unicornis Wood 1969b: 42. Holotype ♂; 6 km W Quiroga, Michoacan, Mexico; Wood Collection.

Distribution: North America (Michoacan in Mexico).

References: (hb) Atkinson et al. 1986: 29. (ds) Atkinson & Equihua 1985a: 83; Atkinson et al. 1986: 29; Wood, S. L. 1982b: 590. (tx) Wood, S. L. 1969b: 42, 1982b: 590.

vitulus Wood 1971: 27. Holotype ♀; Carbonera Experimental Forest, 50 km NW Merida, Merida, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Tree seedling.

References: (tx) Wood, S. L. 1971: 27.

Tribe Cactopinini Chamberlin

Cactopinae

References: Chamberlin 1939: 243.

Cactopinini

References: Wood, S. L. 1978a: 113, 1982b: 66, 1986a: 65–66.

Genus *Cactopinus* Schwarz

CACTOPINUS SCHWARZ 1899: 11. Type-species: *Cactopinus hubbardi* Schwarz, monobasic.

Cactopinorus Bright 1967a: 918. Type-species: *Cactopinus cactophthorus* Wood, original designation. Synonymy: Wood 1969a: 42.

References: (tx) Bright 1967a: 918; Wood, S. L. 1969a: 42.

Keys: Blackman 1938c: 151, Bright 1967a: 919, Wood 1969a: 43, 1982b: 638.

References: (hb) Wood, S. L. 1986a: 66. (ds) Wood, S. L. 1986a: 66. (tx) Arnett 1960: 1042, 1968: 1042; Blackman 1920a: 1–7, 1938c: 151–152; Bright 1967a: 918; Bright & Stark 1973: 60; Chamberlin 1939: 243–246; Hagedorn 1910a: 109, 1910d: 69; Schwarz 1899: 11; Swaine 1909: 87, 1918a: 44; Wood, S. L. 1957d: 105, 1967a: 37–57, 1969a: 42–51, 1982b: 637–648, 1986a: 66.

atkinsoni Wood 1983a: 651. Holotype ♂; Estacion de Biología, Chamela, Jalisco, Mexico; Wood Collection.

Distribution: North America (Jalisco in Mexico).

Hosts: *Pachycerus* sp.

References: (cc) Equihua & Atkinson 1986: 629. (hb) Equihua & Atkinson 1986: 629. (ds) Equihua & Atkinson 1986: 629. (tx) Wood, S. L. 1983a: 651.

burjosi Wood 1983a: 651. Holotype ♂; Tepenene, Puebla, Mexico; Wood Collection.

Distribution: North America (Puebla in Mexico).

Hosts: *Neobuxbaumia mezcalensis*.

References: (hb) Atkinson et al. 1986: 60. (ds) Atkinson et al. 1986: 60. (tx) Wood, S. L. 1983a: 651.

cactophthorus Wood 1957d: 105. Holotype ♂; 16 km SE Tehuiztzingo, Puebla, Mexico; SMUK, Lawrence.

Figures: Bright 1967a: 920 (declivity).

Distribution: North America (Puebla in Mexico).

Hosts: Giant cactus (? *Cereus* sp.).

References: (hb) Wood, S. L. 1982b: 641. (ds) Bright 1967a: 919; Wood, S. L. 1982b: 641. (tx) Bright 1967a: 919–920; Wood, S. L. 1957d: 105, 1969a: 44, 49, 1982b: 641.

carinatus Wood 1969a: 50. Holotype ♂; 26 km N Ixmiquilpan, Hidalgo, Mexico; Wood Collection. Figures: Wood 1969a: 50 (male frons, elytral declivity).

Distribution: North America (Hidalgo in Mexico).

Hosts: Giant cactus (? *Cereus* sp.).

References: (ds) Wood, S. L. 1982b: 644. (tx) Wood, S. L. 1969a: 44, 50, 1982b: 644.

depressus Bright 1967a: 921. Holotype ♂; 73 km N San Luis Potosi, San Luis Potosi, Mexico; CNCI, Ottawa.

Figures: Bright 1967a: 920 (declivity).

Distribution: North America (Hidalgo, San Luis Potosi in Mexico).

Hosts: *Yucca* sp. leaves.

Notes: (3) Wood 1969a: 51 (described female).

References: (hb) Wood, S. L. 1969a: 51, 1982b: 644. (ds) Bright 1967a: 921; Wood, S. L. 1982b: 644. (tx) Bright 1967a: 920–921; de Ruelle 1970: 98; Wood, S. L. 1969a: 44, 51, 1982b: 644.

desertus Bright 1967a: 923. Holotype ♂; 11 km S Ocotillo Wells, Anza-Borrego Desert State Park, San Diego Co., California [USA]; CAS, San Francisco.

Figures: Bright 1967a: 920, Bright & Stark 1973: 155 (adult).

Distribution: North America (Baja California Sur in Mexico/ S California in USA).

Hosts: *Bursera microphylla*.

References: (ay) Lanier 1967a: 83, 1968a: 4168. (hb) Bright & Stark 1973: 60; Wood, S. L. 1982b: 648. (ds) Atkinson & Equihua 1988: 85; Bright & Stark 1973: 60; Furniss, R. L. & Carolin 1977: 375; Wood, S. L. 1982b: 648. (tx) Bright 1967a: 920–924; Bright & Stark 1973: 155; de Ruelle 1970: 98; Wood, S. L. 1969a: 45, 1982b: 648.

granulatus Wood 1983a: 651. Holotype ♂; Autlan, carr. Barra de Navidad Km 163, Jalisco, Mexico; Wood Collection.

Distribution: North America (Jalisco in Mexico).

Hosts: Cactaceae sp.

References: (hb) Atkinson & Equihua 1985b: 235. (ds) Atkinson & Equihua 1985b: 235, 1988: 86. (tx) Wood, S. L. 1983a: 651.

granulifer Wood 1969a: 48. Holotype ♂; 10 km S Huajuapán, Oaxaca, Mexico, 2000 m; Wood Collection.

Figures: Wood 1969a: 48 (male frons, declivity).

Distribution: North America (Oaxaca in Mexico).

Hosts: Giant cactus (? *Cereus* sp.).

References: (hb) Wood, S. L. 1982b: 642. (ds) Wood, S. L. 1982b: 642. (tx) Wood, S. L. 1969a: 44, 48, 1982b: 642.

hubbardi Schwarz 1899: 11. Lectotype ♂; Tucson, Arizona [USA]; USNM, Washington, designated by Wood 1982b: 647.

Figures: Bright 1967a: 920 (declivity).

Distribution: North America (S Arizona in USA).

Hosts: *Carnegiea gigantea*.

Notes: (3) Blackman 1938c: 152 (redescribed).

References: (hb) Chamberlin 1939: 243–245; Schwarz 1899: 5, 11, 1901a: 368; Wood, S. L. 1982b: 647. (ds) Blackwelder 1939; Bright 1967a: 922; Chamberlin 1939: 243–245; Furniss, R. L. & Carolin 1977: 375; Hagedorn 1910a: 69; Keen 1929a:

- 26; Kleine 1913b: 139, 1914b: 388, 1934a: 158; Leng 1920: 339; Swaine 1909: 87; Wood, S. L. 1982b: 647. **(tx)** Blackman 1920: 6, 1938c: 151–154; Bright 1967a: 920, 922; Chamberlin 1939: 243–245; Hagedorn 1910a: 109, 1910d: 69; Hopkins 1914: 117; Keen 1929a: 26; Schedl 1979c: 119; Schwarz 1899: 5, 11; Swaine 1909: 87; Wood, S. L. 1967a: 37, 1969a: 42, 45, 1982b: 647.
- koebeleri Blackman** 1938c: 156. Holotype ♂; Argus Mountains, Inyo County, California [USA]; USNM, Washington.
Figures: Bright 1967a: 920 (declivity).
Distribution: North America (Baja California Norte in Mexico/ S California, W Utah in USA).
Hosts: *Pinus monophylla*, *P. lambertiana*.
References: **(hb)** Bright & Stark 1973: 61; Chamberlin 1939: 246; Wood, S. L. 1982b: 645. **(ds)** Blackwelder 1939; Bright 1967a: 921; Bright & Stark 1973: 61; Chamberlin 1939: 246; Furniss, R. L. & Carolin 1977: 375; Wood, S. L. 1982b: 645. **(tx)** Blackman 1938c: 152, 156–157; Bright 1967a: 920–921; Chamberlin 1939: 246; Wood, S. L. 1969a: 44, 1982b: 645.
- mexicanus Wood** 1967a: 37. Holotype ♂; 21 km N Juchitlan, Jalisco, Mexico; Wood Collection.
Figures: Bright 1967a: 920 (declivity), Wood 1969a: 46 (male frons, elytral declivity).
Distribution: North America (Jalisco in Mexico).
Hosts: Giant cactus (? *Pachycereus pectenaboriginum*).
References: **(hb)** Wood, S. L. 1967a: 37, 1969a: 43, 45, 1982b: 640. **(ds)** Bright 1967a: 919; Wood, S. L. 1982b: 640. **(tx)** Bright 1967a: 919–920; Wood, S. L. 1967a: 37, 1969a: 43, 45–46, 1982b: 640.
- microcornis Wood** 1969a: 45. Holotype ♂; 10 km S Huajuapán, Oaxaca, Mexico; Wood Collection.
Figures: Wood 1969a: 46 (male frons, elytral declivity).
Distribution: North America (Oaxaca in Mexico).
Hosts: Giant cactus (? *Cereus* sp.).
References: **(hb)** Wood, S. L. 1982b: 640. **(ds)** Wood, S. L. 1982b: 640. **(tx)** Wood, S. L. 1969a: 43–46, 1982b: 640.
- nasutus Wood** 1969a: 49. Holotype ♂; 16 km S Matamoros, Puebla, Mexico; Wood Collection.
Figures: Wood 1969a: 49 (male frons, declivity).
Distribution: North America (Oaxaca, Puebla in Mexico).
Hosts: Giant cactus (? *Cereus* sp.).
References: **(ds)** Wood, S. L. 1982b: 643. **(tx)** Wood, S. L. 1969a: 44, 49, 1982b: 643.
- niger Wood** 1969a: 46. Holotype ♂; 32 km S Huajuapán, Oaxaca, Mexico; Wood Collection.
Figures: Wood 1969a: 47 (male frons, elytral declivity).
Distribution: North America (Oaxaca in Mexico).
Hosts: Giant cactus (? *Cereus* sp.).
References: **(ds)** Wood, S. L. 1982b: 641. **(tx)** Wood, S. L. 1969a: 44, 46–47, 1982b: 641.
- pini Blackman** 1938c: 153. Holotype ♂; Griffen, Kern County, California [USA]; USNM, Washington.
Figures: Bright 1967a: 920 (declivity).
Distribution: North America (S California, W Nevada in USA).
Hosts: *Pinus jeffreyi*, *P. monophylla*.
References: **(hb)** Bright & Stark 1973: 62; Chamberlin 1939: 245–246. **(ds)** Blackwelder 1939; Bright 1967a: 923; Bright & Stark 1973: 62; Chamberlin 1939: 245–246; Furniss, R. L. & Carolin 1977: 375; Wood, S. L. 1982b: 647. **(tx)** Blackman 1938c: 151; Bright 1967a: 920–923; Chamberlin 1939: 245–246; de Ruelle 1970: 98; Wood, S. L. 1969a: 45, 1982b: 647.
- rhois Blackman** 1938c: 154. Holotype ♂; Ventura County, California [USA]; USNM, Washington.
Figures: Bright 1967a: 920 (declivity).
Distribution: North America (S California in USA).
Hosts: *Rhus diversilobata*, *R. trilobata*.
References: **(hb)** Bright & Stark 1973: 61; Chamberlin 1939: 246. **(ds)** Blackwelder 1939; Bright 1967a: 922; Bright & Stark 1973: 61; Chamberlin 1939: 246; Wood, S. L. 1982b: 646. **(tx)** Blackman 1938c: 154; Bright 1967a: 920, 922; Chamberlin 1939: 246; de Ruelle 1970: 98; Wood, S. L. 1969a: 44, 1982b: 646.
- setosus Wood** 1983a: 652. Holotype ♂; Estacion de Biología, Chamela, Jalisco, Mexico; Wood Collection.
Distribution: North America (Jalisco in Mexico).
Hosts: Cactaceae sp.
References: **(ec)** Equihua & Atkinson 1986: 629. **(hb)** Equihua & Atkinson 1986: 629. **(ds)** Equihua & Atkinson 1986: 629. **(tx)** Wood, S. L. 1983a: 652.
- spinatus Wood** 1957d: 106. Holotype ♂; 2 km SE Cameron, Oaxaca, Mexico; SMUK, Lawrence.
Figures: Atkinson et al. 1986: 65 (adult), Bright 1967a: 920 (declivity).
Distribution: North America (Jalisco, Oaxaca in Mexico).
Hosts: *Bursera* spp.
References: **(hb)** Atkinson et al. 1986: 60; Wood, S. L. 1982b: 644. **(ds)** Atkinson et al. 1986: 60; Bright 1967a: 924; Wood, S. L. 1982b: 644. **(tx)** Atkinson et al. 1986: 65; Bright 1967a: 920, 924; Wood, S. L. 1957d: 106, 1969a: 44, 1982b: 644.

Tribe Carphodicticini Wood

Carphodicticini

References: Wood, S. L. 1971: 19, 1978a: 113, 1982b: 65–66, 1986a: 66.

Genus *Craniodicticus* Blandford

CRANIODICTICUS BLANDFORD 1895a: 317. Type-species: *Craniodicticus mucronatus* Blandford, monobasic.

References: (hb) Wood, S. L. 1986a: 66. (ds) Wood, S. L. 1986a: 66. (tx) Blandford 1895a: 317; Schedl 1939b: 378–382; Wood, S. L. 1986a: 67.

minor Eggers 1936d: 635. Holotype, sex[?]; Indien, Coorg; Mercara; USNM, Washington. Distribution: Asia (S India).

References: (ds) Schedl 1974c: 262. (tx) Anderson, W. H. & Anderson 1971: 20; Eggers 1936d: 635–636.

mucronatus Blandford 1895a: 317. Syntypes ♂ ♀; Ceylon, Kikoya; BMNH, London.

Distribution: Asia (Sri Lanka).

Hosts: A creeper known as jungle rope.

References: (ds) Kleine 1912b: 162, 1914b: 272; Miwa 1931: 268; Schedl 1959a: 471. (tx) Blandford 1895a: 317; Eggers 1936d: 635–636; Hopkins 1914: 119; Lucas 1920: 206; Schedl 1939b:

382, 1959a: 471; Wood, S. L. 1986a: 67. (ms) Lucas 1920: 206.

Genus *Carphodicticus* Wood

CARPHODICTICUS WOOD 1971: 19. Type-species: *Carphodicticus cristatus* Wood, original designation.

References: (hb) Wood, S. L. 1986a: 67. (ds) Wood, S. L. 1986a: 67. (tx) Wood, S. L. 1971: 19, 1979b: 133–134, 1986a: 67.

cristatus Wood 1971: 19. Holotype ♂; 8 km W Bumbum, Barinas, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Tree limb.

References: (hb) Wood, S. L. 1971: 19–20. (tx) Schedl 1979c: 69; Wood, S. L. 1986a: 67.

Genus *Dendrodecticus* Schedl

DENDRODICTICUS SCHEDL 1958f: 37. Type-species: *Dendrodecticus argentiniae* Schedl, monobasic.

References: (hb) Wood, S. L. 1986a: 67. (ds) Wood, S. L. 1986a: 67. (tx) Schedl 1958f: 37; Wood, S. L. 1979b: 133–134, 1986a: 67.

argentiniae Schedl 1958f: 37. Holotype, sex[?]; Argentinien: Salta; Schedl Collection in NHMW, Wien.

Distribution: South America (Argentina).

References: (tx) Schedl 1958f: 37, 1979c: 25; Wood, S. L. 1979b: 133, 1986a: 67.

Tribe Ipinini Bedel

Ipini

References: Bedel 1888b: 395–396, 400, 417; Handlirsch 1925: 692; Leng 1920: 339–340; Lucas 1920: 34; Nunberg 1954: 14; Reitter 1894: 39, 1906: 711; Spessivtsev 1913a: 28; Wood, S. L. 1978a: 113, 1982b: 66, 1986a: 67.

Ipidae

References: Brues & Melander 1932: 446; Csiki 1906: 77; Hopkins 1915c: 224; Lucas 1920: 34; Tredl 1907: 4.

Ipina

References: Balachowsky 1949a: 52.

Ipinae

References: Costa Lima 1956: 287; Hagedorn 1909: 162, 1910a: 24, 88, 1910d: 47; Hopkins 1915c: 224; Karaman 1963a: 53; Leng 1920: 339–340; Lucas 1920: 34; Nunberg 1954: 14; Nusslin 1911: 433; Reitter 1894: 39, 1913a: 26; Swaine 1909: 80.

Pityogenina

References: Balachowsky 1947: 44, 1949a: 244; Nunberg 1954: 17; Schedl 1958j: 145.

Tomicidae (based on erroneous identification)

References: Bau 1888: 85; Boas 1923; Eichhoff 1878b: 210; Lindemann 1876: 151; Thomson 1859: 145, 1865: 345; Wollaston 1854: 288, 1864: 254.

Tomicides (based on erroneous identification)

References: Ferrari 1867a: 3; Lacordaire 1866: 357, 372.

Tomicinae (based on erroneous identification)

References: Hagedorn 1908: 375.

Tomici (based on erroneous identification)

References: Blandford 1898b: 185; LeConte 1876: 345.

Tomicini (based on erroneous identification)

References: Barbey 1901: 21; Eichhoff 1878b: 7, 71, 1881a: 34, 42, 1883a: 106; Lovendal 1889b: 6.

Genus *Dendrochilus* Schedl

DENDROCHILUS SCHEDL 1957d: 79. Type-species: *Dendrochilus strombosopsis* Schedl, subsequent designation by Schedl 1962j: 55.

References: **(hb)** Wood, S. L. 1986a: 68. **(ds)** Schedl 1962j: 55; Wood, S. L. 1986a: 68. **(tx)** Schedl 1957d: 79, 1962j: 55; Wood, S. L. 1986a: 68.

arundinarius Schedl 1957d: 80. Holotype, sex?; Congo Belge: Kivu, Mont Kahuzi, 2230 m; MRCB, Tervuren.

Figures: Nunberg 1961a: 333, Schedl 1962j: 57 (galleries).

Distribution: Africa (Zaire).

Hosts: *Arundinaria alpina*.

References: **(cc)** Schedl 1958d: 185. **(hb)** Schedl 1958d: 185–188. **(ds)** Nunberg 1961a: 331. **(tx)** Nunberg 1961a: 333; Schedl 1957d: 80, 1962j: 56, 1962k: 1056.

elongatulus Schedl 1977d: 282. Holotype, sex?; Ghana, Ashanti Region, Kwadaso, 259 m, N 6 degrees 42', W 1 degree 39'; NHMB, Budapest.

Distribution: Africa (Ghana).

References: **(tx)** Schedl 1977d: 282.

filum Schedl 1977d: 283. Holotype, sex?; Congo Belge, Kivu, Uvira; Schedl Collection in NHMW, Wien.

Distribution: Africa (Zaire).

References: **(tx)** Schedl 1977d: 283.

intermedius Schedl 1977d: 283. Holotype, sex?; Nigeria, Sanaru; NHMB, Budapest.

Distribution: Africa (Nigeria).

References: **(tx)** Schedl 1977d: 283.

jasminiae Schedl 1957d: 81. Holotype, sex?; Congo Belge: Kivu, Mt. Kahuzi, 2240 m; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Jasminium abyssinicum*.

References: **(cc)** Schedl 1958d: 187. **(hb)** Schedl 1958d: 187, 1962j: 58. **(ds)** Schedl 1962j: 58. **(tx)** Schedl 1957d: 81, 1962j: 58, 1979c: 129.

mikaniae Schedl 1957d: 82. Holotype, sex?; Congo Belge: Kivu, Mt. Kahuzi, versant Ouest, 2230 m; MRCB, Tervuren.

Figures: Schedl 1962j: 56 (antenna), 58 (galleries).

Distribution: Africa (Zaire).

Hosts: *Mikania scandens*.

References: **(hb)** Schedl 1962j: 59. **(ds)** Schedl 1962j: 59. **(tx)** Schedl 1957d: 82, 1962j: 59, 1962k: 56, 1979c: 153.

robustus Schedl 1957d: 80. Holotype, sex?; Congo Belge: Kivu, Hembé-Bitale; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Brillantaisia* cf. *iconensis*.

References: **(cc)** Schedl 1962j: 60. **(hb)** Schedl 1962j: 60. **(ds)** Schedl 1962j: 60. **(tx)** Schedl 1957d: 80, 1962j: 60, 1979c: 212.

strombosopsis Schedl 1957d: 79. Holotype, sex?; Congo Belge: Yangambi; MRCB, Tervuren.

Figures: Schedl 1962j: 62 (adult antenna, galleries).

Distribution: Africa (Zaire).

Hosts: *Strombosopsis tetrandra*.

References: **(hb)** Schedl 1962j: 61. **(ds)** Schedl 1962j: 61. **(tx)** Schedl 1957d: 79, 1962j: 61–62, 1979c: 239.

villiersi (Lepesme) 1942: 270 (*Thammurgus*). Holotype, sex?; Mont Cameroun, versant Sud-Est, 1800–2000 m; MNHN, Paris.

Distribution: Africa (Cameroon).

Hosts: Liana

References: **(tx)** Lepesme 1942: 269–270; Schedl 1957d: 56, 64, 1960b: 164, 1962j: 63, 1964k: 309.

Genus *Pityogenes* Bedel

PITYOGENES BEDEL 1888b: 397. Type-species: *Dermestes chalcographus* Linnaeus, original designation.

Eggertia Lebedev 1926: 121. Type-species: *Bostrichus bidentatus* Herbst, subsequent designation by Wood 1986a: 68. Synonymy: Schedl 1962a: 132.

References: (tx) Lebedev 1926: 121; Schedl 1962a: 131–132; Wood, S. L. 1986a: 68.

*Pityocera*genus Balachowsky 1947: 44. Type-species: *Bostrichus quadridens* Hartig, original designation. Synonymy: Schedl 1958k: 145.

References: (tx) Balachowsky 1947: 44, 1949a: 244; Schedl 1958k: 145.

Keys: Bright 1976d: 150, Swaine 1918a: 104, Wood 1982b: 650 for North America; Pfeffer 1946: 112, Reitter 1913a: 97, Schedl 1962a: 134, Stark 1952: 272 for Europe and Asia; Nobuchi 1974: 36 for Japan; Yin, Huang, & Li 1984: 121–122 for China.

References: (cn) Andreeva & Gorjaceva 1960; Aulio 1926: 56–60; Clemens 1916: 355–398; Felt 1906: 374; Nobuchi 1969a: 65; Spaic 1964a; Swaine 1913: 87–92; Walker 1912: 59. (cc) Balazy & Michalski 1964a; Nickle 1976b; Nickle & Welch 1984: 638; Rühm 1960: 203; Voolma 1978: 91; Wisniewski 1979b. (hb) Bright 1976d: 139; Bright & Stark 1973: 78; Furniss, R. L. & Carolin 1977: 399; Wood, S. L. 1982b: 649, 1986a: 68. (ds) Bright & Stark 1973: 78; Furniss, R. L. & Carolin 1977: 399; Nobuchi 1974: 36; Plaza & Gil 1982; Schedl 1981b: 82; Scheerpeltz & Winkler 1930: 258; Swaine 1909: 132; Trappen 1935: 143; Wood, S. L. 1982b: 649, 1986a: 68; Yin, Huang, & Li 1984: 121. (tx) Arnett 1960: 1044, 1968: 1044; Balachowsky 1947: 44, 1949a: 244–247; Beal & Massey 1945: 138; Bedel 1888b: 398, 418; Blackman 1922b: 77, 110; Bright 1976d: 139, 1978: 139; Bright & Stark 1973: 78; Choo 1983: 27; Choo, Woo, & Nobuchi 1988b; Dodge 1938: 19, 48; Duffy 1953: 15; Escherich 1923: 483; Fuchs 1911: 1; Hopkins 1914: 167; Kalina 1970: 127; Karaman 1972: 140; Kostin 1973: 262; Krivolutsкая 1958: 173–174; Kurenzov 1941: 201; Lanier 1968: 4167; Lebedev 1926: 121; Munro 1926: 64; Murayama 1929: 23, 28, 1930: 18, 1954: 172; Nickle 1963: 256–262; Niisima 1909: 145; Nobuchi 1974: 36, 41; Nunberg 1954: 71; Nusslin 1912: 101–107; Pfeffer 1946b: 112–119, 1955a: 223, 1959a: 68; Plaza & Gil 1982; Reitter 1913a: 92, 97; Saalas 1914: 86–88; Schedl 1954b: 37, 1958k: 145; 1962a: 132–139, 1981b: 82; Schimitschek 1937: 50–51; Spessivtsev 1922: 479, 1925: 182, 1931; Stark 1952: 372; Stresemann et al. 1989: 351; Swaine 1918a: 47, 104; Tragardh 1930: 468–480; Vite 1965: 267; Wood, S. L. 1951b: 32, 1982b: 649–656, 1986a: 68; Yin & Huang 1981: 562; Yin, Huang, & Li 1984: 121; Zivojinovic 1948: 65–73; Zolk 1935: 258–294.

bidentatus (Herbst) 1784: 24 (*Bostrichus*). Syn-types, sex?; Deutschland; not located.

Figures: Bevan 1987: 115 (adult), Grune 1979:

130, Krivolutsкая 1965: 240, Pfeffer 1989a: pl. 9, Plaza & Gil 1982: 260.

Distribution: Asia (Israel/Turkey/Sakhalin Island, E USSR), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxembourg/ Netherlands/ Norway/ Poland/ Romania/ Scotland/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), introduced into Madagascar and into North America (Livingston Co., New York in USA).

Hosts: *Pinus* spp., rare in *Abies* spp., *Picea* spp.

References: (ay) Dobers 1915; Escherich 1923b: 465, 484, 549; Feytaud 1950a; Fuchs 1911a; Munro 1917b: 147; Nusslin 1911a: 109; Scherb 1971; Sedlaczek 1902b: 244. (bv) Annala & Petaisto 1978; Baader 1989; Bakke 1956: 40–42; Byers, Anderbrandt, & Lofqvist 1989; Chararas 1982; Fuhrer & Kerck 1978a; Grune 1979: 131; King, C. J. 1977b; Luitjes 1976; Naumann-Etienne 1978a; Nuorteva 1956c: 93; Nuorteva & Nuorteva 1968; Prell 1931: 369; Rozhkov 1970: 147; Tragardh 1930b: 107. (cn) Anonymous 1979p; Ass & Funtikow 1941; Baader 1989; Bakke 1960: 313; Barbey 1906a, 1925: 278; Bevan 1964b; Blandford 1892a; Byers, Anderbrandt, & Lofqvist 1989; Cameron 1940: 40–42; Chararas 1961b: 69, 1978; Chorbazdzhevo 1929; Chrystal 1949: 3–11; Crooke 1955b, 1956; Day & Chrystal 1928: 19–30; Eckstein 1915, 1926: 572, 1930b; Egorov 1958: 1492; Ehnstrom et al. 1974; Elton 1949a; Escherich 1917: 97–115, 1923b: 465, 484, 549, 1932a; Feytaud 1946, 1950a, 1950b; Forbes 1910; Gabler 1955; Galoux 1947c, 1948d; Georgescu et al. 1957: 357, 449; Geschwind 1919: 111, 199; Cornostaev 1917: 308–315; Grandi 1951; Gyorfi 1946: 193, 195, 1959; Hanson, H. S. 1937; Henry 1904; Hess 1907: 253; Hess & Beck 1914: 334, 1927: 277; Hrubik 1973; Hubault 1945; Joly 1976; Judeich & Nitsche 1895: 501; Kamp 1950, 1956b: 471; Kangas 1937, 1938: 1–20, 73–98; Koch 1913: 118; Krausse 1919: 134–136; Kruel 1950: 6; Laidlaw 1952: 21; Lekander 1955b: 17; Lekander, M. 1951: 53; Lesne 1913: 213; Lichtenstein & Picard 1918: 172–174; Lindgren 1980a: 66; Lohrenz 1907: 47; Lonshehakov & Lure 1960; Lozovoi 1950c: 305; Lozovoi & Tropin 1965, 1967; Lyle 1915: 212–213; MacDougall 1915, 1921; Marchal 1914: 9–13; Marcu 1926b: 65, 1930: 227–236; Marie 1924: 328–330; Mathiesen 1952: 282; Mayne 1926: 234–245; Mokrzecki 1933: 282; Munro 1917: 123–158, 1919: 1–35, 1922: 136; Nuorteva & Nuorteva 1968; Nusslin 1913: 205; Ozols 1960; Pfeffer 1948d: 235; Pierce, W. D. 1917: 69; Polozencev & Zolotov 1969: 3–6; Rhumler 1922: 323, 1927: 338; Rossem, Burger, & Van de Bund 1960; Ryukin 1951: 80; Saalas 1949: 344, 383; Sargos 1947: 8; Schimitschek 1937c: 56, 1944: 186, 1955a: 71, 73, 1955c: 88; Schwerdtfeger 1944a: 177, 1950b: 50, 1968a; Sedlaczek 1921: 335, 1936: 200; Sierpinski

- 1966: 57; Stefanov 1946: 1; Tragardh 1917: 28, 1921: 281–314, 1927c: 88; Tullgren 1916: 104; Vappula 1965: 153; Voute 1942: 617; Vuillet 1913: 111–112; Wachtl 1883b: 319, 1901: 381; Wardle 1929: 323; Weber, H. 1926: 574; Wichmann 1927b: 352; Wolff & Krausse 1922: 95. (**ec**) Acatay 1943b; Annala & Petaisto 1978; Ass & Funtikow 1941; Bakke 1956a; Balazy & Michalski 1960, 1964b; Barbey 1906a, 1927; Belanowski 1930; Bramannis 1940; Bychawska 1985; Cameron 1940; Carle 1971; Chararas 1959a, 1964b; Day & Chrystal 1928; Elliot & Morley 1907; Espanol 1967a; Fuchs 1930, 1938; Fuhrer & Kerck 1978a; Gadek 1976; Galoux 1947d; Graham 1969: 874; Györfi 1941b, 1952b; Halperin & Holzschuh 1984: 30; Heqvist 1957a, 1963: 154, 1967: 69; Hirschmann & Wisniewski 1982, 1983; Jamnicky 1957b: 18; Kangas 1937, 1971; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1980b, 1983; Kleine 1908c: 214, 1909a: 47, 77, 1944: 72; Kokueva 1900: 569; Kolubajiv 1954: 22; Kolubajiv & Kalandra 1954: 30; Kostin 1964: 118; Krol 1984; Laumond & Ritter 1971; Lichtenstein & Picard 1918: 173; Lindquist, E. E. 1970b; Lovaszy 1941: 195; Lozovoi 1961: 91–113, 1962: 171–284; Lozovoi & Tropin 1965, 1967; Luitjes 1976; Lundberg 1984; Majeski, T. & Wisniewski 1978a: 8; Mathiesen 1952: 282; Michalski & Ratajczak 1989; Naumann-Etienne 1978a; Nunberg 1930: 201; Nuorteva 1956a: 17, 1957b: 53, 1968a, 1970, 1971: 69; Nuorteva & Nuorteva 1968; Nusslin 1927: 338; Palmen 1944: 60, 1946: 194; Pettersen 1976b; Pfeffer 1923a: 332, 1928b: 6, 1943b: 182; Pierce, W. D. 1917: 69; Poinar 1975: 165; Roubal 1934a: 86; Ruhm 1954c: 222, 1956b: 4; Rumbold 1931c: 848; Ruschka 1921: 241; Ryvkin 1951: 80–81; Saalas 1917a: 18, 1949: 344, 383; Schaarschmidt 1959: 786; Schedl 1962a: 155; Schimitschek 1930a: 326, 1955a: 71, 73; Schwerdtfeger 1944a: 177, 1950b: 50; Sedlaczek 1921: 334–339, 1935a: 163; Seiff 1925: 334–337; Shaw, M. R. 1989; Sitowski 1930: 2; Stewart 1923: 138; Szczepanski 1960a: 411; Thompson, W. R. & Simmonds 1964: 23, 1965: 92; Tudor 1969: 33; Vietinghoff 1924: 329; Wagner 1928: 15; Wiackowski 1957a: 85, 1957b: 312; Wichmann 1954d: 438; Wisniewski 1979b; Wulker 1924: 11. (**hb**) Annala & Petaisto 1978; Anonymous 1920: 65; Arndt 1920; Bakke 1968b: 640; Barbey 1901: 26, 97, 1925: 278; Beffa 1949, 1961; Bejer-Petersen 1957; Carle 1971; Cecconi 1906, 1924; Chararas 1961b: 69, 1962c: 354; Charvat 1950; Chorbazdzhevo 1929; Dallimore & Munro 1922: 189–193; Dombrowsky 1887, 1892; Eckstein 1897, 1915, 1926: 572; Eichhoff 1881a: 51, 253; Elton et al. 1964; Escherich 1923b: 465, 484, 549, 1930b; Everts 1900; Ferreira & Ferreira 1989; Feytaud 1946, 1950a; Frohlich 1927: 101; Fuchs 1904a, 1911b; Gabler 1955; Gillanders 1908; Cornostaev 1916: 312; Grandi 1951; Györfi 1957; Hagedorn 1903a; Halperin & Holzschuh 1984: 30; Hamilton, W. D. 1979: 202; Hennings 1908c: 220, 1908d; Henschel 1895a: 180; Hess 1907: 253; Hess & Beck 1914: 334, 1927: 277; Joly 1976; Judeich & Nitsche 1895: 501; Karpinski 1933b: 35; Karpinski & Strawinski 1948: 157; Kauschinger 1883: 104; King, C. 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- ater* Fabricius 1792: 368 (*Bostrichus*). Holotype, sex?; Sueciae; UZMC, Copenhagen. Synonymy: Zimsen 1964: 190.
Notes: (1) Although there were 2 syntypes, the second one is not a Scolytidae; therefore, the first becomes the holotype by elimination.
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- bidens* Fabricius 1801: 389 (*Bostrichus*). Syntypes 5, sex?; Kiliae; UZMC, Copenhagen. Synonymy: Balachowsky 1949a: 252.
References: (**ay**) Scheyvrew 1889a: 22. (**cn**) Dolles 1885; Esterberg 1959; Feytaud 1950b; Grossbauer 1875; Hartig 1861: 324, 1877: 190; Hess 1898: 354; Jaensch 1938: 49; Kauschinger 1893: 142; Keller 1903b: 52; Kholodkovskii 1912: 278, 309; Kirchner 1860: 91; Kollar 1851: 230; Kontkanen 1932: 59; Koppen 1882:

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- bispinus* Guyon 1855: 4815 (*Bostrichus*). Syn-types, sex?; Richmond, Surrey, England; not located. Synonymy: Schedl 1962a: 155.
References: **(hb)** Budge 1949; Girard 1873. **(ds)** Bielz 1851; Gaubil 1849: 126. **(tx)** Girard 1873; Guyon 1855: 4815; Schedl 1962a: 155.
- bidentatus carniolica* Fuchs 1911: 35. Syn-types, sex?; Karnten; Fuchs Collection. Synonymy: Schedl 1962a: 155.
References: **(tx)** Fuchs 1911: 14, 35; Reitter 1913a: 99; Schedl 1934f: 1644, 1962a: 155; Weber, L. 1912: 30. **(ms)** Sedlacek 1913: 455; Weber, L. 1912: 30.
- obtus* Eggers 1932e: 81. Holotype ♂; Jutland (Skagen) [Denmark]; August West Collection. Synonymy: Schedl 1962a: 159.
References: **(ds)** Hansen 1939; Horion 1951; Kleine 1934a: 152. **(tx)** Eggers 1932e: 81; Schedl 1962a: 159.
- bistridentatus* (Eichhoff) 1878b: 282 (*Tomicus*). Syn-types, sex?; Europe [apparently Nice, France]; Hamburg Museum, lost.
Figures: Grune 1979: 134, Joly 1976b: pl. 10, Nobuchi 1974: pl. 1–2, Pfeffer 1989a: pl. 10.
Distribution: Asia (NE China/ Japan/ Turkey), Europe (Albania/ Austria/ Bulgaria/ Corsica/ Cyprus/ Czechoslovakia/ France/ Germany/ Greece/ Hungary/ Italy/ Poland/ Romania/ Spain/ Switzerland/ Yugoslavia).

Hosts: *Pinus nigra*, *P. brutia*, *P. heldreichii*, *P. leucodermis*, *P. pentaphylla*, rare in *Cedrus libanotica*.

References: (ay) Escherich 1923b: 484, 552; Feytaud 1950a; Fuchs 1911a; Nusslin 1911a: 255. (bv) Grune 1979: 135; Hellrigl 1985. (cn) Acatay 1943a: 68; Anonymous 1979c; Barbey 1924a, 1925: 341; Chararas 1978; Chorbadzhievo 1929; Eckstein 1926: 579; Escherich 1923b: 484, 552, 1929: 69–90; Feytaud 1950a; Gradojevic 1940; Grandi 1951; Györfi 1959; Joly 1976; Judeich & Nitsche 1895: 501; Kailidis & Markalas 1988; Keller 1903b: 42, 56, 1920: 197; Kholodkovskii 1912: 310; Koch 1913: 118; Nusslin 1913: 205, 280; Pierce, W. D. 1917: 69; Popovic 1931: 57; Rhumbler 1922: 323, 1927: 338; Schimitschek 1932a: 23, 1937c: 56, 1938b: 115, 1938c: 2118, 1939d: 2118, 1955c: 89; Schmidt 1881: 35; Schwerdtfeger 1944a: 177, 1957a: 183; Sierpinski 1966: 60; Weber, H. 1926: 579; Wichmann 1927b: 378; Zinojinovic 1963: 449. (ec) Capek 1957; Chararas 1964b; Gabler 1947b; Graham 1969: 874; Györfi 1941b; Hellrigl 1985; Hellrigl & Schwenke 1985: 48; Heqvist 1955a: 97; Jahn & Sünreich 1960b; Jammicky 1957b: 26; Kleine 1908c: 214, 1944: 78; Knoche 1908b: 204; Krezal 1959: 574; Masutti 1959: 268, 301; Novak 1952: 416; Nunberg 1930: 203; Nuorteva 1957b: 52; Nusslin 1927: 338; Pfeffer 1932a: 19; Ruschka 1925: 201; Schaarschmidt 1959: 803; Schimitschek 1930a: 281; Schwerdtfeger 1944a: 177, 1957a: 183; Sedlacek 1904: 359, 1908: 52, 1935a: 163; Seitner 1913a: 27; Seitner & Notzl 1925: 188; Thompson, W. R. 1943: 57; Vitzthum 1923: 176, 1926: 408. (hb) Acatay 1943a: 68; Alkan 1946: 113; Barbey 1901: 26, 99, 1924a, 1925: 341; Bargmann 1906; Budkov 1897; Bukowsky 1930; Cecconi 1924; Chararas 1962c: 358; Charvat 1950; Chorbadzhievo 1929; Dombrowsky 1887, 1892; Drugescu 1980; Dzhambazishvili 1961: 751–757, 1962; Eckstein 1926: 579; Eichhoff 1882e: 325; Escherich 1923b: 484, 552; Feytaud 1950a; Fuchs 1904a; Grandi 1951; Györfi 1957; Hagedorn 1903a; Henschel 1885b, 1895a: 181; Joly 1976; Judeich & Nitsche 1895: 501; Karpinski & Strawinski 1948: 157; Keller 1907a: 181; Kholodkovskii 1912: 310; Knotek 1894a: 558, 1897: 160, 1898b: 333; Lengerken 1939: 66, 1954: 86; Masutti 1959: 268, 301, 1964; Negru & Pirvescu 1966: 150; Nunberg 1929: 113, 1929c: 123, 1947c: 106; Nusslin 1898: 283, 1913: 205, 280, 1927: 338; Postner 1974: 444; Rhumbler 1922: 323, 1927: 338; Schedl 1962a: 151; Scheyvrew 1905c: 192; Schimitschek 1930a: 281; Schmidt 1881: 35; Schwerdtfeger 1944a: 177, 1957a: 183; Sedlacek 1935a: 163; Seitner & Notzl 1925: 188; Spessivtsev 1913a: 70; Stark 1952: 389; Tschorbadjiev 1929: 173; Weber, H. 1926: 579; Wichmann 1927b: 378. (ds) Anonymous 1979p; Balachowsky 1943a; Barthe 1896; Belousov 1916, 1917: 335; Branesik 1906; Budkov 1897; Bukowsky 1930;

Buresh & Lazarov 1956; Cecconi 1897; Champion 1894; Charvat 1950; Chorbadzhievo 1924d, 1929; Eggers 1904; Endrodi 1955b; Escalera 1919; Escherich 1923b: 484, 552, 1929; Favre 1890; Fuchs 1904a, 1905a; Georglioni 1977: 75; Geschwind 1919: 119, 199; Gohbi 1989: 61; Grune 1979: 135; Györfi 1940: 47, 1941b; Hagedorn 1903a, 1904e, 1910d: 49; Henschel 1895a: 181; Heyden, Reitter, & Weise 1891: 672; Holdhaus & Deubel 1910: 181; Holzel 1946: 81; Horion 1935, 1951; Joly 1976; Judeich & Nitsche 1895: 501; Kailidis 1985; Kailidis & Markalas 1988; Karaman 1964: 440–443; Karpinski & Strawinski 1948: 157; Keller 1920: 13; Kleine 1912a: 264, 268, 1913a: 35, 1913b: 131, 1934a: 151; Knotek 1892a: 38, 1894a: 558, 1898b: 333; Kolbe, W. 1916: 257; Kozikowsky 1921: 181, 1925: 18–23; Kozikowsky & Kuntze 1925a: 20; Kurir 1947c: 6; Lomnicki 1913b: 148; Lucht 1987: 279; Marcu 1957b: 213; Munster 1928: 290; Murayama 1939: 140, 1942a: 55; Negru 1966b: 403, 1968a: 457; Negru & Pirvescu 1966: 150; Nobuchi 1974: 37; Novak, P. 1952: 416; Nunberg 1927a: 214, 1928b: 88, 114; Nusslin 1898: 283; Pfeffer 1923b: 106, 1924a: 96, 1930b: 120, 1931b: 75, 1935: 159, 1936: 90, 1947d: 127, 1950b: 76, 1965: 63, 1984: 274, 277, 1989a: 70; Pierce, W. D. 1917: 69; Pjatnitskii 1930a: 165; Plaza & Gil 1982: 260; Postner 1974: 444; Prossen 1913: 83; Reitter 1894a: 79, 1916: 301, 352; Rodzianko 1915; Ruschka 1925: 197–202; Ruskov 1928c: 62; Sainte Claire & Mequignon 1938: 448; Schaufuss 1915: 1246; Schedl 1959b: 99, 1961b: 185, 1962a: 151, 1971d: 431, 1971f: 147, 1980a: 24, 1981b: 84; Schilsky 1909: 188; Schimitschek 1938b: 115; Schreiner 1897: 369; Sierpinski 1966b: 60; Stark 1927b: 90, 1952: 389; Stein & Weise 1877: 165; Tredd 1907: 15; Tschorbadjiev 1929: 173; Wichmann 1927a: 75; Zinojinovic 1960. (tx) Alkan 1946: 113; Balachowsky 1943a, 1947, 1949a: 249; Barbey 1901: 26, 99; Charvat 1950; Chorbadzhievo 1924d; Dombrowsky 1887, 1892; Eggers 1920: 125–126, 1922c: 119, 1926b, 1933f: 5, 50; Eichhoff 1878b: 282, 1883b: 219; Endrodi 1957a: 307, 1957b; Escherich 1923b: 484, 552; Fauvel 1889; Fleischer 1927; Fraser 1920; Fuchs 1911a; Grune 1979: 134–135; Hagedorn 1910a: 104; Hellrigl 1985; Henschel 1885a, 1895a: 181; Joly 1976, 1976b: pl. 10; Judeich & Nitsche 1895: 501; Karpinski & Strawinski 1948: 157; Knotek 1892a: 38; Koch 1913: 118, 1932: 124; Lucht 1987: 279; Murayama 1939: 140–141; Negru 1966b: 403; Nobuchi 1974: 37, pls. 1–2; Nunberg 1928: 211–215, 1929c: 123, 1947: 99–108; Nusslin 1911a: 255; Pfeffer 1932b: 24, 1946b: 117, 1954: 274, 1989a: pl. 10; Plaza & Gil 1982: 260, 262; Postner 1974: 444; Quaschik 1953: 35; Reitter 1887b: 197, 1894a: 79, 1913a: 100, 1916: 301, 352; Rhumbler 1922: 323, 1927: 338; Schedl 1934f: 1644, 1946a: 14, 1962a: 155, 1980a: 24, 1981b: 84; Schimitschek 1937c: 56,

1955c: 89; Seitner 1887: 45; Spessivtsev 1913a: 70; Stark 1936: 146, 1952: 389; Wachtl 1895: 8; Weber, L. 1912: 30. (**ms**) Schimitschek 1930b: 407; Sedlacek 1904: 359; Seitner 1913a: 27; Weber, L. 1912: 30.

pilidens Reitter 1894a: 79. Syntypes, sex?; Corsica; NHMB, Budapest. Synonymy: Eggers 1922d: 119, Pfeffer 1984: 275.

References: (**ay**) Fuchs 1911a. (**cn**) Chorbadzhevo 1929; Pierce, W. D. 1917: 69; Rhumbler 1922: 323, 1927: 339; Rudnev 1965b; Schimitschek 1944: 186. (**ec**) Apfelbeck 1916b: 429–439; Chararas 1957d; Kleine 1908c: 214; Kolubajiv 1954: 221; Nuorteva 1957b: 53; Schimitschek 1930a: 281; Thompson, W. R. 1943: 59. (**hb**) Apfelbeck 1916b, 1917; Chorbadzhevo 1929; Fuchs 1906b; Knotek 1898b: 333, 1899b: 7, 1901: 567; Rhumbler 1922: 323, 1927: 339; Schimitschek 1930a: 281, 1944: 186; Tschorbadjiev 1929: 173. (**ds**) Ammann & Knabl 1923; Barthe 1896; Buresh & Lazarov 1956; Chorbadzhevo 1929; Fedorov 1930; Fuchs 1906b; Hagedorn 1910d: 57; Heyden, Reitter, & Weise 1906: 712; Kleine 1913a: 35, 1913b: 131; Knotek 1898b: 333, 1899b: 7, 1901: 567; Kolubajiv 1934: 65; Langhoffer 1915c: 158; Linder 1946: 203; Murayama 1939: 140; Pfeffer 1935: 158, 1936: 90; Pierce, W. D. 1917: 69; Pittioni 1943: 176; Reitter 1894a: 79, 1898a: 140, 1916: 301; Rudnev 1965b; Sainte-Claire 1914: 473; Schaufuss 1915: 1246; Schilsky 1909: 188; Stark 1936a: 146; Tredl 1907: 15; Tschorbadjiev 1929: 173. (**tx**) Balachowsky 1949a: 259; Eggers 1911: 122, 1922d: 119; Fuchs 1911a; Hagedorn 1910a: 105; Pfeffer 1984: 275; Portevin 1935: 335; Reitter 1894a: 79, 1913a: 101, 1916: 301; Rhumbler 1922: 323, 1927: 339; Schedl 1934f: 1644; Stroh-meyer 1929: 181; Weber 1912: 30.

pilidens albanicus Apfelbeck 1896(?). Syntypes, sex?; Merdita (Albania); not located. Synonymy: Schedl 1979c: 127.

Notes: (3) Eggers 1911a: 122 (cited as a var. of *pilidens*).

References: (**tx**) Apfelbeck 1896(?); Eggers 1911a: 122; Endrodi 1957: 418; Murayama 1939: 140; Schedl 1934f: 1644, 1979c: 127.

herbellae Stroh-meyer 1929b: 181. Syntypes, sex?; Spain: Sierra de Guadaramma; not located. Synonymy: Pfeffer 1984: 275.

References: (**bv**) Grune 1979: 133. (**cn**) Pfeffer 1960: 345; Postner 1974: 445; Souphieff & Scherbinovskaja 1937: 47. (**ds**) Grune 1979: 133; Kleine 1934a: 152; Pfeffer 1960: 345; Postner 1974: 445; Souphieff & Scherbinovskaja 1937: 47. (**tx**) Grune 1979: 133; Pfeffer 1984: 275; Schedl 1934f: 1644, 1962a: 150; Stroh-meyer 1929b: 181.

calcaratus (Eichhoff) 1878b: 280 (*Tomicus*). Syntypes, sex?; Nizzam; Hamburg Museum, lost. Figures: Grune 1979: 134, Plaza & Gil 1982: 260, 262.

Distribution: Africa (Algeria/ Morocco/ Tunisia), Asia (Israel/ Syria/ Turkey), Europe (Corsica/ S France/ Greece/ Hungary/ Italy/ Sardinia/ Spain/ W USSR/ Yugoslavia).

Hosts: *Pinus brutia*, *P. halepensis*, *P. maritima*, *P. radiata*, *P. sylvestris*.

Notes: (3) Dejean 1837: 332 (*calcaratus*, nomen nudum).

References: (**bv**) Baader 1989; Chararas 1982; Grune 1979: 135; Mendel 1988a; Mendel, Madar, & Golan 1985. (**cn**) Baader 1989; Bodenheimer & Neumark 1955; Chararas 1976c, 1977c, 1978; Georgebits 1974; Grandi 1951; Halperin, Mendel, & Golan 1982; Joly 1976; Kailidis & Markalas 1988; Mendel 1987, 1988c, 1988d; Mendel et al. 1983. (**ec**) Arnoldi et al. 1955: 717; Bodenheimer & Neumark 1955: 1–122; Chararas 1964b; Fry 1989: 17; Halperin & Holzschuh 1984: 28; Kailidis 1966a; Mendel 1985, 1986a, 1986c: 115, 1986d: 130, 1988c, 1988d; Mendel & Halperin 1981; Mendel, Pooler, & Livne 1989; Normand 1937: 269; Novak, P. 1952: 417; Purrini & Halperin 1982, 1983; Thompson, W. R. 1943: 59; Wilkinson 1935: 72. (**hb**) Bodenheimer 1935; Chararas 1962c: 358; Georgebits 1974; Grandi 1951; Halperin & Holzschuh 1984: 28; Joly 1976; Masutti 1964; Mendel 1987; Mendel, Madar, & Golan 1985; Postner 1974: 444; Schedl 1962a: 149. (**ds**) Bodenheimer 1935; Dejean 1821, 1825, 1837; Georgebits 1974; Grune 1979: 135; Halperin 1966: 68, 1969: 329; Halperin & Holzschuh 1984: 28; Joly 1976; Kailidis 1985; Kailidis & Markalas 1988; Kleine 1913a: 245; Novak 1952: 417; Pfeffer 1947d: 126; Plaza & Gil 1982: 260; Postner 1974: 444; Sainte-Claire & Mequignon 1938: 448; Schedl 1961b: 185, 1962a: 149, 1964a, 1969g: 291, 1971d: 426, 1972n: 351, 1978e: 37, 1979i: 291; Spaic 1964: 226–236; Stein & Weise 1877: 165; Sturm 1843: 230; Supatashvili, Shalibashvili, & Supatashvili 1972. (**tx**) Balachowsky 1947, 1949a: 249, 253; Dejean 1821, 1825; Eggers 1922d: 119; Eichhoff 1878b: 280; Grune 1979: 134–135; Joly 1976; Pfeffer 1946b: 117, 1984: 274; Plaza & Gil 1982: 260, 262; Postner 1974: 444; Schedl 1934f: 1644, 1962a: 149; Wachtl 1895: 8. (**ms**) Chararas 1971a: 853; Mendel 1986a.

lipperti Henschel 1885a: 242 (*Tomicus*). Syntypes ♂ ♀; Insel Meleba (Dalmatian); Henschel Collection. Synonymy: Eggers 1922d: 118.

Notes: (3) This is *bistridentatus* of Eichhoff 1881a: 260, a misidentification. Eggers 1922d: 119 proposed the new name *alpinus*, nomen nudum, for Eichhoff's misidentified series; consequently, the name *alpinus* Eggers has no status in nomenclature because *bistridentatus* Eichhoff 1881a was not an available name.

- References: (ay) Fuchs 1911a; Schwerdtfeger 1929: 403. (cn) Barbey 1925: 248; Pierce, W. D. 1917: 417; Rhumbler 1922: 323, 1927: 339; Schimitschek 1937c: 56, 1944: 187, 1955c: 89; Wachtl 1901: 381. (ce) Barbey 1924b; Kleine 1908c: 214, 1944: 78; Nusslin 1927: 339; Ruschka 1925: 202; Schwerdtfeger 1929: 403; Thompson, W. R. 1943: 59. (hb) Barbey 1906c, 1925: 248; Bargmann 1906; Dombrowsky 1887, 1892; Henschel 1895a: 184; Knotek 1899b: 4, 1901: 567; Nusslin 1927: 339; Peyerimhoff 1919: 255; Rhumbler 1922: 323, 1927: 339; Schimitschek 1944: 187; Schwerdtfeger 1929: 403; Stark 1952: 389; Wachtl 1901: 381. (ds) Arnoldi et al. 1955: 718; Barbey 1907: 440–443, 1924b; Csiki 1914; Eggers 1912f; Ganglbauer 1904; Hagedorn 1910d: 56; Harii 1971: 262; Henschel 1895a: 184; Heyden, Reitter, & Weise 1891: 672, 1906: 712; Kleine 1913b: 131, 1914a: 16, 1934a: 152; Knotek 1899b: 4, 1901: 567; Langhoffer 1915c: 158; Novak, P. 1964; Peyerimhoff 1919: 255, 1933b: 367; Pierce, W. D. 1917: 74; Pittioni 1943: 176; Reitter 1894a: 79; Sahlberg 1903b: 63; Schaufuss 1915: 1246; Schilsky 1909: 188; Stark 1936e: 146, 1952: 389; Tredl 1907: 15. (tx) Balachowsky 1949a: 253; Barbey 1906c; Bargmann 1897b; Dombrowsky 1887, 1892; Eggers 1912f: 29, 1922d: 118; Fauvel 1887; Fuchs 1911a; Hagedorn 1910a: 105; Henschel 1885a: 242, 1895a: 184; Reitter 1889c: 374, 1894a: 79, 1913a: 101; Rhumbler 1922: 323, 1927: 339; Schedl 1934f: 1644; Schimitschek 1937c: 56, 1955c: 89; Sokanovskii 1958: 39; Stark 1936: 146, 148, 1952: 389; Strohmeier 1929: 181; Wachtl 1895: 8; Weber, L. 1912: 30. (ms) Sedlacek 1913: 455; Weber, L. 1912: 30.
- opacifrons* Reitter 1913a: 99. Syntypes, sex?; Vernet, Sommieres [S France]; NHMB, Budapest. Synonymy: Schedl 1962a: 150. References: (ds) Schedl 1938d: 450. (tx) Balachowsky 1949a: 252; Eggers 1914: 107–108; Portevin 1935: 335; Reitter 1913a: 98–99; Schedl 1934f: 1644, 1962a: 150.
- carinulatus* (LeConte)** 1874: 70 (*Cryphalus*). Lectotype ♀; California [USA]; MCZ, Cambridge, designated by Wood 1982b: 653. Figures: Bright 1976d: 146, Bright & Stark 1973: 159. Distribution: North America (British Columbia in Canada/ Chihuahua in Mexico/ Arizona, California, Colorado, Idaho, Montana, Nebraska, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington, Wyoming in USA). Hosts: *Pinus ponderosa*, *P. jeffreyi*, uncommon in other *P. spp.*, rare in other conifers. References: (bv) Baader 1989; Jacobson 1972; Miller & Keen 1960: 116; Vite 1965a: 267; Vite & Pitman 1967: 683–701. (cn) Arno & Hoff 1989; Baader 1989; Blackman 1931c: 34–35; Brown, C. S. 1954; Chamberlin 1924, 1939: 407, 1958: 177–178; Doane et al. 1936; Essig 1926: 520, 1958: 520; Hopkins 1904a: 17, 44; Keen 1929: 53, 1938: 118, 1952c: 152; Kinghorn 1955a: 502; Lindgren 1980a: 67; Loomis, Hofacker, & Tucker 1985: 26; Miller & Keen 1960: 116; Randall 1952: 4; Sharon & O'Neil 1985; Swaine 1918a: 105–106. (ec) Blackman 1931c; Craighead et al. 1927; Furniss, R. L. & Carolin 1977: 399; Keen 1938: 118; Miller & Keen 1960: 116. (hb) Blackman 1931c; Bright 1976d: 141; Bright & Stark 1973: 79; Chamberlin 1939: 407, 1958: 177–178; Doane et al. 1936; Essig 1926: 520, 1958: 520; Furniss, R. L. & Carolin 1977: 399; Hopkins 1904a: 17, 44; Keen 1929: 53, 1938: 118, 1952c: 152; Lindgren 1980a: 76; Miller & Keen 1960: 116; Pierce, W. D. 1907: 291; Schwarz 1894b: 255; Swaine 1918a: 105, 106; Wood, S. L. 1982b: 653. (ds) Atkinson & Equihua 1988: 94; Bright 1976d: 141; Bright & Stark 1973: 79; Chamberlin 1917, 1925, 1939: 407, 1958: 177–178; Cockerell et al. 1907; Currie 1905; Essig 1926: 520, 1958: 520; Evans, D. 1983: 34; Evans, D., Lowe, & Hunt 1978; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 399; Gast et al. 1989: 385; Hagedorn 1910d: 51; Henshaw 1882: 268, 1885: 147; Hopping 1922, 1924: 125–128; Horning & Barr 1970: 41; Keen 1929: 35, 53, 1938: 118, 1952c: 152; Kleine 1914b: 397, 1915b: 131, 1934a: 151; Leng 1920: 341; Patterson & Hatch 1945: 153; Schuder 1969: 78; Schwarz 1886: 41; Swaine 1909: 132; Wickham 1896a: 309, 1896b: 170; Wood, S. L. 1972a: 417. (tx) Balachowsky 1947; Blackman 1921: 15–16; Bright 1976d: 141, 146; Bright & Stark 1973: 159; Chamberlin 1939: 407, 1958: 177–178; Eichhoff 1896: 609; Endrodi 1957: 418; Evans, D. 1983: 34; Fall 1926: 208; Hagedorn 1910a: 104; Keen 1929: 35; LeConte 1874: 70, 1876: 352, 1878: 624; Schwarz 1886: 41, 1891a: 168, 1894: 255; Swaine 1909: 132, 1918a: 105–106; Wood, S. L. 1972a: 417, 1982b: 653.
- hamatus* LeConte 1874: 72 (*Xyleborus*). Lectotype ♂; Mojave Desert, California [USA]; MCZ, Cambridge, designated by Wood 1982b: 653. Synonymy: LeConte 1878: 624. References: (ds) Fall & Cockerell 1907: 217; Henshaw 1882: 268; Leng 1920: 341; Swaine 1909: 132. (tx) LeConte 1874: 72, 1876: 360, 1878: 624; Swaine 1909: 132.
- chalcographus* (Linnaeus)** 1761: 143 (*Dermestes*). Syntypes 2 ♂; Sweden; UZMC, Copenhagen. Figures: Balachowsky 1949a: 16, 246, 248, 250, Bevan 1987: 115, Chararas 1960a, 1961c, Postner 1974: 441, Yin, Huang, & Li 1984: 123. Distribution: Antilles Islands (introduced into Jamaica), Asia (Heilongjiang, Sichuan in China/ Japan/ Korea/ Kuril Islands/ Turkey/ Sakhalin Island, Siberia in E USSR), Europe (Austria/ Belgium/ Denmark/ England/ Finland/ France/ Germany/

Greece/ Hungary/ Norway/ Poland/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Pinus* spp., *Picea* spp., *Abies* spp., *Larix* spp.

Notes: (3) Dejean 1837: 332 (named *Bostrichus bicolor*; nomen nudum, a synonym).

References: (ay) Chararas 1956a, 1956c, 1971b, 1977b; Doganlar 1984; Escherich 1923b: 458, 484, 595; Feytaud 1950a; Francke-Grosmann 1959; Fuchs 1911a; Fuhrer 1977, 1978, 1980a; Fuhrer & Klipstein 1980; Klipstein 1985, 1986: 285; Leisewitz 1906: 98; Lekander 1959b: 33; Nunberg 1928a: 141; Nusslin 1911a: 60; Ritzen-gruber & Fuhrer 1986; Robertson 1961; Scherb 1971; Schevyrew 1889a: 22; Schonherr 1970b; Schwerdtfeger 1926: 90, 1929: 334, 427; Vogel 1986; Vypel 1985; Zumn & Soldan 1981. (bv) Annila 1975: 8; Annila & Petaisto 1978; Baader 1989; Baeckstrom et al. 1988; Benz, Bovey, & Junod 1986; Butovitsch 1971; Byers 1983b; Byers, Anderbrandt, & Lofqvist 1989; Byers et al. 1988, 1989; Cereze 1964: 498; Chararas 1956: 113–213, 1960b: 24–41, 1960c: 82–97, 1966b, 1971b, 1977b, 1982; Chararas & Deschamps 1962; Choo, Woo, & Park 1988; Duelli, Studer, & Naf 1986; Eidmann 1965b, 1987; Francke et al. 1977; Fuhrer & Muhlenbrock 1983; Gavalis & Jakaitis 1981; Gerkern 1978; Gries & Sanders 1981; Grune 1979: 129; Heuer & Vite 1984a; Hilker 1984; Hogberg et al. 1987; Jacobson 1972; Jahn 1981, 1982; Johnson 1960a: 17; Kevdina 1897: 108; Klassen, Ridgway, & Inscow 1982; Kohnle & Klimetzek 1984; Lekander 1972b, 1972c; Luitjes 1976; Magema, Gasper, & Severin 1982; Mori et al. 1979; Mozolevskaya, Lebedeva, & Galaseva 1979; Naumann-Etienne 1978a; Novak, V. 1962b; Nuorteva 1956c: 17; Prell 1930c: 631, 1931: 369; Regnander 1975c; Reid 1958d: 505; Rozhkov 1970: 145; Rutledge, Chararas, & Ducauze 1988; Saarenmaa 1978; Schnaider 1955: 233; Schwerdtfeger 1981: 192; Simioescu 1978; Smith, L. R., Williams, & Silberstein 1978; Sturies & Fuhrer 1979; Vasechko 1971a, 1971b; Vite 1965: 438–439, 1980; Vite & Pitman 1967: 683–701; Weber, R. & Schurig 1984; Wegensteiner, Lorbeer, & Fuhrer 1989; Wichmann 1967; Zumn 1988; Zumn & Landa 1985. (cn) Aclouque 1914; Androic 1966: 49; Anonymous 1960n, 1967r, 1970p, 1972i, 1975a, 1976d, 1977r, 1978i, 1978w, 1979p, 1980g, 1984b; Apfelbeck 1916: 429–430; Ass & Funtikow 1941; Austara 1975; Austara et al. 1983; Baader 1989; Baisch 1954: 319; Bakke 1960: 317; Barbey 1906a, 1922b, 1925: 67; Becker 1950; Bejer-Petersen 1959a, 1978, 1981; Berwig 1950; Berwig & Schuhly 1964: 17–20; Bjorkhen et al. 1977; Blanchere & Robert 1889; Blandford 1892a; Blondin 1876; Boas 1933: 268–280; Borcea 1924: 221–260; Borodajewsky 1930: 249–251, 805–811, 1931: 157–159; Brauner 1985; Browne 1968b: 562; Butovitsch & Spaack 1939: 1–120; Byers, Anderbrandt, & Lofqvist 1989; Chararas 1960a,

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- conjunctus** Reitter 1887: 196. Syntypes, sex?; Tirol, circa 2000 m; NHMB, Budapest. Figures: Kalina 1970: 127, Pfeffer 1989a: pl. 10. Distribution: Asia (Hebei in China/ Japan/ Turkey/ E USSR), Europe (Austria/ Bulgaria/ Czechoslovakia/ France/ Germany/ Hungary/ Romania/ W USSR). Hosts: *Pinus nigra*, *P. cembra*, *P. montana*, *P. sylvestris*. Notes: (1) Originally named as a variety of *bistridentatus*. References: **(bv)** Baader 1989; Benz, Bovey, & Jonud 1986; Grune 1979: 133. **(cn)** Baader 1989; Pfeffer 1948d: 235, 1949b: 150; Schimitschek 1931: 460–491, 1935a: 200, 1937c: 56, 1955c: 89; Seitner 1913a: 27. **(ec)** Jannicky 1957c; Pfeffer 1949b: 150, 1960: 346; Schimitschek 1935a: 200; Seitner 1913a: 27. **(hb)** Bargmann 1906; Dombrowsky 1892; Henschel 1895a: 182; Pfeffer 1941b: 19, 1941c: 7; Postner 1974: 445. **(ds)** Arnoldi et al. 1955: 716–717; Borchert 1951; Endrodi 1958b, 1986: 217; Fuchs 1905a, 1913; Grune 1979: 133; Henschel 1895a: 182; Horion 1951; Jannicky 1960a: 820–831; Nunberg 1927a: 214, 1928a: 114, 1954: 75; Pfeffer 1923b: 106, 1947c: 4, 1960: 346, 1984: 274, 1989a: 70; Postner 1974: 445; Prossen 1913: 83; Reitter 1894a: 79, 1916: 352; Ronbal 1941: 271; Schilsky 1909: 188; Wanka 1908: 231. **(tx)** Balachowsky 1949a: 249; Dombrowsky 1892; Eggers 1933f: 49; Endrodi 1957a: 307, 1957b: 418; Fauvel 1889; Fuchs 1913; Greckin 1962: 706–717; Grune 1979: 133; Henschel 1895a: 182; Kalina 1970: 126–127; Nunberg 1954: 75; Pfeffer 1932b: 25, 1941b: 19, 1941c: 4, 7, 25, 1946b: 116, 1947c: 4, 1949: 145–159, 1955a: 232, 1984: 275, 1989: pl. 10; Postner 1974: 445; Reitter 1887b: 196, 1894a: 79, 1916: 352; Schedl 1934f: 1644, 1979c: 32; Schimitschek 1937c: 56, 58, 1955c: 89; Sokanovskii 1959: 39; Stark 1936: 146, 148; Wachtl 1895: 8; Weber, L. 1912: 30. **(ms)** Sedlacek 1913: 455; Weber, L. 1912: 30.
- baicalicus* Eggers 1933f: 49. Lectotype, sex?; Baicalgebiet; USNM, Washington, designated by Anderson & Anderson 1971: 5. Synonymy: Pfeffer 1984: 275. References: **(cn)** Greckin 1962b: 707. **(ec)** Kostin 1964: 116; Yanovskii 1977b. **(hb)** Kostin 1960: 134; Stark 1952: 386. **(ds)** Greckin 1962b: 707; Krivolutsкая 1983; Sokanovskii 1960; Stark 1936c: 146, 1952: 386; Yanovskii 1974, 1977a; Yanovsky & Tegshzhargal 1985: 410; Zinovjev 1955: 187. **(tx)** Anderson, W. H. & Anderson 1971: 5; Eggers 1933f: 49; Michalski 1969b: 570; Pfeffer 1946b: 116; Sokanovskii 1960: 675; Stark 1952: 386.
- fossifrons** (LeConte) 1876: 353 (*Pityophthorus*). Lectotype ♀; Vancouver Island, British Columbia [Canada]; MCZ, Cambridge, designated by Wood 1982b: 651. Distribution: North America (British Columbia in Canada/ California, Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming in USA). Hosts: *Pinus albicaulis*, *P. balfouriana*, *P. flexilis*, *P. monticola*, *P. strobiformis*, rarely in other conifers. References: **(cn)** Anonymous 1962h; Amo & Hoff 1989; Browne 1968b: 562; Chamberlin 1924, 1939: 404, 1958: 177; Doane et al. 1936; Hatch 1938: 194; Keen 1929: 53, 1938: 118, 1952c: 153; Lindgren 1980a: 67; Ruppel 1967: 78; Swaine 1918a: 105. **(ec)** DeLeon 1934a; Furniss, R. L. & Carolin 1977: 400; Keen 1938: 118; Kulhavy, Patridge, & Stark 1984; Poinar 1975: 166. **(hb)** Bright & Stark 1973: 75; Browne 1968b: 562; Chamberlin 1939: 404, 1958: 177; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 400; Keen 1929: 53, 1938: 118, 1952c: 153; Lindgren 1980a: 67; Swaine 1918a: 105; Wood, S. L. 1982b: 651. **(ds)** Bright 1976d: 140; Bright & Stark 1973: 75; Browne 1968b: 562; Chamberlin 1925, 1939: 404, 1958: 177; Evans, D. 1983: 34; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 400; Gast et al. 1989: 385; Hagedorn 1910a: 54; Henshaw 1882: 268, 1885: 147; Hopping 1922; Keen 1929: 35, 53, 1938: 118, 1952c: 153; Kleine 1913b: 131, 1934a: 152; Leng 1920: 341; McComb et al. 1953: 3; Patterson & Hatch 1945: 153; Ruppel 1967: 78; Schedl 1960a: 75; Swaine 1909: 132; Wickham 1896a: 309; Wood, S. L. 1948: 56, 1951a: 128, 1972a: 417, 1982b: 651. **(tx)** Balachowsky 1947; Bright 1976d: 140; Chamberlin 1939: 404, 1958: 177; Eichhoff 1896: 609; Evans, D. 1983: 34; Hagedorn 1910a: 104; Keen 1929: 35; LeConte 1876: 353; Schwarz 1896: 609; Swaine 1909: 132, 1918a: 105–106; Wood, S. L. 1951a: 128, 1972a: 417, 1982b: 651. **(ms)** Hatch 1938: 194.
- foveolatus** Eggers 1926a: 137. Lectotype ♀; Ontake (Prov. Shinano, Mitteiljapan); USNM, Washington, Anderson & Anderson 1971: 13.

Figures: Nobuchi 1966d: 34, pl. 5, 1974: pl. 1–2.
Distribution: Asia (Japan/ Kuril Islands/ Kamchatka, Sakhalin Island, Siberia in E USSR).
Hosts: *Pinus pumila*, *P. koraiensis*, *Picea ajanensis*, *P. jezoensis*.

References: (cn) Kurenzov 1935c: 188, 1950a: 15. (ec) Kurenzov 1931a: 56, 1964: 20. (hb) Krivolutsкая 1973: 141; Kurenzov 1935a: 20, 40, 1948b: 104, 110, 1950d: 150; Kurenzov & Kononov 1961: 601; Rudnev 1958: 310–313; Schedl 1962a: 145; Stark 1952: 385. (ds) Krivolutsкая 1965a: 239, 1973: 141; Kurenzov 1934a: 56, 1935a: 20, 40, 1935c: 188, 1936b: 351, 1938a: 64, 1963b: 114, 1964: 20, 1965, 1967; Kurenzov & Kononov 1961: 595; Murayama 1948: 2, 1949a: 13, 1954b: 172; Nobuchi 1966d: 34, 1974: 39; Schedl 1962a: 145; Stark 1936e: 145, 1952: 385. (tx) Anderson, W. H. & Anderson 1971: 13; Eggers 1926a: 137; Kurenzov 1941a: 197, 1948b: 104, 110; Michalski 1969b: 570; Murayama 1954b: 172; Nobuchi 1966d: 34, pl. 5, 1974: 39, pl. 1, 2; Pfeffer 1946b: 116; Schedl 1934f: 1644, 1962a: 145, 1979c: 99; Stark 1933: 145, 147, 1952: 385.

hopkinsi Swaine 1915a: 8. Lectotype ♀; Ste. Anne de Bellevue, Quebec [Canada]; CNCI, Ottawa, designated by Bright 1967b: 677.

Figures: Blackman 1915: pls. 2–6.

Distribution: North America (New Brunswick, Newfoundland, Nova Scotia, Ontario, Quebec in Canada/ Connecticut, Georgia, Illinois, Indiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, West Virginia, Wisconsin in USA).

Hosts: *Pinus strobus*, rare in *P. resinosa*, *P. sylvestris*.

References: (ay) Beal 1927b; Robertson 1961; Thomas, J. B. 1957: 4, 1967; Thomas, J. B. & Krywienczyk 1966. (bv) Hosking & Knight 1975. (cn) Anonymous 1966f, 1989; Baker W. L. 1972: 258; Beal 1927: 522–539; Becker, W. B. 1955d, 1959b, 1962, 1964a, 1964c; Bess 1944; Blackman 1950; Britton 1920a; Browne 1968b: 562; Carroll & Parrott 1960; Chamberlin 1924; Chenier & Philogene 1989a; Doane et al. 1936; Drake 1921: 201–205; Drooz 1985: 357; Graham 1922b, 1939b, 1952; Herrick 1935: 249; Hopkins 1904a: 25; Lindquist, O. H. & Syme 1981: 87; MacAloney & Schmiede 1962; Pierson 1927: 108; Swaine 1918a: 105–106; Swaine & Craighead 1924: 1–27; Syme & Nystrom 1988: 83; Thomas, J. B. 1965a. (ec) Bushing 1965: 464; Felt 1906: 374; Froggatt 1923; Girault 1916: 301; Graham 1922b, 1939b, 1952; Hines, J. W. & Heikkinen 1977; Kaston 1939: 17; Morley 1939: 244; Scherbak 1985; Thomas, J. B. 1955: 341; Thompson, W. R. 1943: 59. (hb) Baker, W. L. 1972: 258; Beal & Massey 1945: 138–140; Blackman 1915,

1919a: 134–142, 1950; Blatchley & Leng 1916: 635; Borden 1969: 876; Bright 1976d: 140; Browne 1968b: 562; Chamberlin 1939: 404–407; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Drooz 1985: 357; Felt 1906: 374; Froggatt 1923; Gobeil 1935; Graham 1939b, 1952; Herrick 1935: 249; Hopkins 1904a: 25; Kaston 1939: 17; Kaston & Riggs 1937: 98; MacAloney & Schmiede 1962; MacAloney & Secrest 1944: 12–13; Morley 1939: 244; Pierson 1927: 108; Prebble 1933: 145; Swaine 1918a: 105–106; Wolcott & Montgomery 1933: 166. (ds) Anonymous 1926c: 519, 1966f; Atkinson 1991: 158; Beal & Massey 1945: 138–140; Beaulne 1956; Blackman 1950; Bright 1971a: 126, 1976d: 140; Britton 1920a; Browne 1968b: 562; Chamberlin 1925, 1939: 404–407; Deyrup 1981b: 6; Deyrup & Atkinson 1987a: 65; Dodge 1938; Drooz 1985: 357; Girault 1916: 291–308; Kleine 1934a: 152; Leng 1920: 341; Leonard 1928: 519; Lindquist, O. H. & Syme 1981: 87; Morgan, A. V. & Syme 1981: 87; Morgan, Anne, Morgan, & Elias 1985; Proctor 1946: 208; Schwert et al. 1985; Syme & Nystrom 1988: 83; Thomas, J. B. 1955: 341; Wolcott & Montgomery 1933: 166; Wood, S. L. 1982b: 652. (tx) Balachowsky 1947; Beal & Massey 1945: 138–140; Benoit 1985: 203; Blackman 1915: 11–66; Blatchley & Leng 1916: 635; Bright 1967b: 677, 1976d: 140; Chamberlin 1939: 404–407; Dodge 1938: 46–47; Hoebeke 1978; Lindquist, O. H. & Syme 1981: 87; Pardy 1974, 1977; Pardy, Stone, & White 1968; de Ruette 1970: 107; Sokanovskii 1959: 287; Swaine 1915a: 8, 1916: 8, 1918a: 105–106; Syme & Nystrom 1988: 83; Thomas, J. B. 1957: 4, 1967; Thomas, J. B. & Krywienczyk 1966; Titus, Meikle, & Harrison 1985: 105; Wood, S. L. 1982b: 652. (ms) Chenier & Philogene 1989a.

irkutensis Eggers 1910e: 38. Lectotype ♂; bei Irkutsk; USNM, Washington, designated by Anderson & Anderson 1971: 16.

Figures: Grune 1979: 130, Pfeffer 1989a: pl. 9.

Distribution: Asia (Mongolia/ Turkey/ E USSR), Europe (Austria/ Bulgaria/ Czechoslovakia/ Finland/ Germany/ Hungary/ Poland/ Romania/ Sweden/ Switzerland/ W USSR).

Hosts: *Pinus sylvestris*, *P. koraiensis*, *P. spp.*, less common in *Abies pectinata*, *Larix europea*, *Picea excelsa*.

References: (bv) Grune 1979: 131; Rozhkov 1970: 146. (cn) Berdennikova 1954: 86; Esterberg 1959; Lonshehakov & Lure 1960; Nusslin 1913: 282; Titova 1966. (ec) Bogdanova 1987; Heqvist 1963: 154; Kostin 1964: 115; Michalski & Ratajczak 1989; Pfeffer 1960: 345; Postner 1974: 443; Titova 1966. (hb) Kostin 1960: 134; Nusslin 1913: 282; Petrenko 1966; Pfeffer 1989a: 69; Rozhkov 1970: 146; Schedl 1962a: 140, 1980a: 25, 1981b: 83; Stark 1952: 382. (ds) Arnoldi et al. 1955: 718; Butovitsch & Heqvist 1947; Esterberg

1959; Florov 1949; Grune 1979: 131; Hansen 1939; Hellen 1947; Holzschuh 1977; Klefbeck & Sjöberg 1960: 232; Kleine 1913b: 131, 1914b: 247, 1934a: 152; Krivolitskaya 1983; Linnman 1965: 27; Lucht 1987: 279; Mandl 1931: 25; Nuorteva 1971: 71; Pfeffer 1960: 345, 1989a: 69; Postner 1974: 443; Rozhkov 1970p: 146; Schedl 1962a: 140, 1981b: 83; Sokanovskii 1960; Stark 1931d: 548, 1936e: 145, 1952: 382; Wichmann 1927a: 76; Yanovskii 1989: 64; Yanovskii & Tegshzhargal 1985: 411; Zinovjev 1955: 187. **(tx)** Anderson, W. H. & Anderson 1971: 16; Eggers 1910e: 38, 1912: 210, 1913: 128–129, 1922c: 16–17; Fuchs 1912b: 308–310; Grune 1979: 13, 130; Hagedorn 1910a: 105; Kurenzov 1941a: 194; Lucht 1987: 279; Pfeffer 1946b: 115, 1955a: 225, 1989a: pl. 9; Postner 1974: 443; Reitter 1913a: 98; Schedl 1934f: 1644, 1961a: 140, 1980a: 25, 1981b: 83; Sokanovskii 1960: 677; Stark 1938: 145–149, 1952: 382.

monacensis Fuchs 1911a: 3. Syntypes, sex?; Föhrenwaldern um Schleissheim gegen München; Fuchs Collection. Synonymy: Schedl 1962a: 140.

References: **(ay)** Escherich 1923b: 554; Fuchs 1911a. **(bv)** Hellen 1921. **(cn)** Hellen 1921; Koch 1913: 122; Kontkanen 1932: 63; Nestertschuk 1930: 176; Rhumbler 1927: 340; Schwerdtfeger 1944a: 177, 1957a: 183; Wichmann 1927b: 378. **(ec)** Fuchs 1937; Galoux 1947d; Graham 1969: 877; Gyorfi 1952b; Karpinski 1932a, 1933b: 35; Kleine 1944: 82; Kostenko 1929; Nunberg 1947b: 26; Nuorteva 1957b: 67; Pfeffer 1923a: 332, 1960: 345; Schwerdtfeger 1944a: 177, 1957a: 183; Sokanovskii 1936: 74; Thompson, W. R. 1943: 59; Tragardh 1927a: 210. **(hb)** Alkan 1946: 113; Charvat 1950; Escherich 1923b: 554; Karpinski 1931: 18–39, 1933b: 35; Karpinski & Strawinski 1948: 157; Lengerken 1939: 65, 1954: 86; Michalski 1959a: 291; Pfeffer 1941b: 6; Rhumbler 1927: 340; Schwerdtfeger 1944a: 177, 1957a: 183; Spessivtsev 1923: 213, 1928a: 232; Stark 1926a: 330, 1952: 381; Wichmann 1927b: 378. **(ds)** Arnoldi et al. 1955: 718; Charvat 1950; Delahon 1919; Escherich 1923b: 554, 1932b; Esterberg 1928; Heyrovsky 1927; Horion 1951; Karpinski 1931: 18, 26, 33, 1932a: 95; Karpinski & Strawinski 1948: 157; Kleine 1912a: 268, 1913b: 131, 1914b: 247, 1934a: 152; Kontkanen 1932: 63; Kostenko 1929; Lundberg 1981: 151, 1982; Nunberg 1954: 76, 1960b: 159; Pfeffer 1923b: 106, 1930b: 120, 1931b: 74, 1935: 158, 1947e: 13, 1960: 345; Reitter 1916: 300; Saalas 1931: 68; Schaufuss 1915: 1245; Sokanovskii 1936: 74; Stark 1926a: 330, 1926b: 105, 1926j: 127, 1931a: 27, 1936e: 145, 1952: 381. **(tx)** Alkan 1946: 113; Balachowsky 1947: 44; Charvat 1950; Eggers 1912c, 1913b: 128, 1914, 1922c: 16–17, 1923b; Escherich 1923b: 554; Fleischer

1927; Fuchs 1911a: 3, 1912b: 308; Karpinski & Strawinski 1948: 157; Koch 1913: 122; Nunberg 1954: 76; Pfeffer 1932b: 24, 1941b: 6, 1946b: 115, 1947e: 13, 1955a: 225; Reitter 1913a: 98, 1916: 300; Rhumbler 1927: 340; Schedl 1934f: 1644; Spessivtsev 1922a: 480, 490, 1923: 213–214, 1925a: 185; Stark 1938: 145–149, 1952: 381; Weber, L. 1912: 30. **(ms)** Escherich 1932b; Hellen 1921; Michalski 1959a: 291; Schimitschek 1930b: 407; Sedlaczek 1913: 455; Weber, L. 1912: 30.

monacensis bialowiezensis Karpinski 1931: 34, 39. Syntypes, sex?; Białowieza Forest [W USSR]; Karpinski Collection. Synonymy: Schedl 1962a: 140.

References: **(ds)** Schnaider 1936: 366. **(tx)** Karpinski 1931: 34, 39; Schedl 1934f: 1644, 1962a: 140.

japonicus Nobuchi 1974: 39. Holotype ♀; Mt. Hakkoda, Aomori, Japan; Nobuchi Collection, Ibaraki.

Figures: Nobuchi 1974: pls. 1–2 (adult).

Distribution: Asia (Shanxi in China/ Japan).

Hosts: *Pinus pumila*.

References: **(tx)** Bright 1976d: 203, 211; Nobuchi 1974: 39–40, pl. 1, 2.

knechteli Swaine 1918a: 106. Holotype ♀; Beau Vent Lake, Jasper Park, Alberta [Canada]; CNCI, Ottawa.

Figures: Bright 1976d: 146; Kusch 1967: 9.

Distribution: North America (Alberta, British Columbia, Saskatchewan in Canada/ California, Colorado, Idaho, Montana, Oregon, Utah, Wyoming in USA).

Hosts: *Pinus contorta*.

Notes: (3) Bright 1976d: 143 (treated as a subspecies). Wood 1982b: 656 (A Peace River, Alberta, series in a zone of host hybridization suggests hybridization and/or intergradation with *plagiatus*. Until a more extensive zone of intergradation is found, both names are retained as full species).

References: **(bv)** Schmitz 1988. **(cn)** Anonymous 1962h; Brown 1941: 12; Browne 1968b: 562; Chamberlin 1924; Craighead 1927: 1–12; Doane et al. 1936; Evenden 1940; Evenden & Gibson 1940: 274; Keen 1929: 53, 1938: 118, 1952c: 153; Lindgren 1980a: 67; Smith, G. J. & Melvin 1974a, 1974b; Swaine 1918a: 105–106; Wong, H. R. & Melvin 1973. **(ec)** Bushing 1965: 464; Chatelain & Schenk 1983; Craighead et al. 1927; DeLeon 1934a; Furniss, R. L. & Carolin 1977: 400; Keen 1938: 118; Lanier 1967: 1134; Marsh 1979: 150; Powell, J. M., Wong, & Melvin 1972: 15; Reid 1955: 312; Schmitz 1988. **(hb)** Bright 1976d: 143; Bright & Stark 1973: 78; Browne 1968b: 562; Chamberlin 1939: 404, 1958: 178–179; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 400; Keen 1929: 52, 1938: 118, 1952c: 153; Lindgren 1980a: 67; Reid 1955: 312, 316; Schmitz 1988; Swaine

1918a: 105–106; Wong, H. R. & Melvin 1973; Wood, S. L. 1982b: 655. (**ds**) Bright 1976d: 143; Bright & Stark 1973: 79; Brown 1940a: 15, 1943: 8; Browne 1968b: 562; Chamberlin 1925, 1939: 404, 1958: 178–179; Evans, D. 1983: 34; Evans, D., Lowe, & Hunt 1978; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 400; Gast et al. 1989: 385; Gautreau & Melvin 1974: 14; Hoping 1922; Keen 1929: 35, 53, 1938: 118, 1952c: 153; Kleine 1934a: 152; Kusch 1967; Leng 1920: 341; McComb et al. 1953: 3; Patterson & Hatch 1945: 153; Smith, G. J. & Melvin 1974a, 1974b; Smith, G. S. 1930; Still, Tidsbury, & Melvin 1974a: 14; Susut & Melvin 1974; Wood, S. L. 1948: 58, 1952a: 128, 1972a: 417, 1982b: 655. (**tx**) Blackman 1921: 15–16; Bright 1967b: 677, 1976d: 143, 146; Chamberlin 1939: 404, 1958: 178–179; Evans, D. 1983: 34; Hoebeke 1978; Keen 1929: 35; Kusch 1967: 9; de Ruelle 1970: 107; Swaine 1918a: 105–108; Wood, S. L. 1951a: 128, 1972a: 417, 1982b: 655.

meridianus Blackman 1921: 15. Lectotype ♀; Meridian, Mississippi [USA]; USNM, Washington, designated by Wood 1982b: 652.

Figures: Blackman 1921: pl. 2, figs. 7–10 (adult), 1922b: pl. 2, figs. 7–10.

Distribution: North America (Mississippi, North Carolina in USA).

Hosts: *Pinus echinata*, *P. taeda*.

Notes: (3) This species infests shaded out branches of living trees.

References: (**bv**) Turnbow & Franklin 1980. (**en**) Baker, W. L. 1972: 258; Blackman 1950; Doane et al. 1936. (**hb**) Baker, W. L. 1972: 258; Beal & Massey 1945: 138–140; Blackman 1950; Chamberlin 1939: 408; Doane et al. 1936; Drooz 1985: 357; Wood, S. L. 1982b: 652. (**ds**) Beal & Massey 1945: 138–140; Blackman 1950; Chamberlin 1939: 408; Drooz 1985: 357; Kleine 1934a: 152; Leng & Mutchler 1927: 52; Turnbow & Franklin 1980; Wood, S. L. 1982b: 652. (**tx**) Balachowsky 1947; Beal & Massey 1945: 138–140; Blackman 1921: 15, 1922b: 110–111; Chamberlin 1939: 408; Wood, S. L. 1982b: 652.

mexicanus Wood 1980b: 356. Holotype ♀; Parque Nacional Zoquiapan, Mexico, Mexico; Wood Collection.

Figures: Atkinson et al. 1986: 33 (adult).

Distribution: North America (Estado de Mexico in Mexico).

Hosts: *Pinus hartwegii*.

Notes: (3) This species infests shaded out branches of living trees.

References: (**hb**) Atkinson & Equihua 1985a: 86; Atkinson et al. 1986: 34; Furniss, R. L. & Carolin 1977: 387. (**ds**) Atkinson & Equihua 1985a: 86; Atkinson et al. 1986: 34; Furniss, R. L. & Carolin 1977: 387; Wood, S. L. 1982b: 653. (**tx**) Atkinson et al. 1986: 33; Wood, S. L. 1980b: 356, 1982b: 653.

pennidens (Reitter) 1889c: 374 (*Tomicus*). Holotype ♂; Griechenland: Insel Tinos; NHMB, Budapest.

Figures: Grune 1979: 130.

Distribution: Asia (Syria/ Turkey), Europe (Greece/ W USSR).

Hosts: *Pinus brutia*, *P. pinac*.

References: (**bv**) Grune 1979: 131. (**ce**) Kleine 1908c: 214. (**hb**) Postner 1974: 445; Stark 1952: 390. (**ds**) Grune 1979: 131; Hagedorn 1910d: 56; Heyden, Reitter, & Weise 1891: 672, 1906: 712; Kleine 1913b: 131; Postner 1974: 445; Reitter 1894a: 80, 1894b: 117; Schedl 1961b: 185, 1962a: 148; Stark 1936e: 146, 1952: 390; Tredl 1907: 15. (**tx**) Fuchs 1911a; Grune 1979: 130–131; Hagedorn 1910a: 105; Pfeffer 1946b; Postner 1974: 445; Reitter 1889c: 374, 1894a: 80, 1894b: 117, 1913a: 101; Schedl 1934f: 1644, 1962a: 148; Sokanovskii 1958: 39; Stark 1938: 146, 1952: 390; Wachtl 1895: 8; Weber, L. 1912: 30. (**ms**) Sedlacek 1913: 455; Weber 1912: 30.

plagiatus (LeConte) 1868: 161 (*Xyleborus*). Lectotype ♂; Maryland [USA]; MCZ, Cambridge, designated by Wood 1982b: 645.

Distribution: North America (Alberta, Manitoba, Ontario, Quebec in Canada/ District of Columbia, Indiana, Maryland, Michigan, Minnesota, North Carolina, Pennsylvania, Virginia, West Virginia in USA).

Hosts: *Pinus banksiana*, *P. echinata*, *P. resinosa*, *P. virginiana*.

Notes: (3) Bright 1976d: 142 (treated as a subspecies). Wood 1982b: 655 (Apparent hybridization and/or intergradation with *kuechteli* occurs in a small area of host intergradation in Alberta. This is not considered extensive enough or of sufficient magnitude to warrant reduction to subspecific rank).

References: (**ay**) Hopkins 1894g; Thomas, J. B. 1957: 4, 1967. (**en**) Anonymous 1965; Blackman 1950; Chamberlin 1924; Doane et al. 1936; Hopkins 1899c: 342, 447; Kondo & Moody 1987: 104; Kondo & Taylor 1985; Lindquist, O. H. & Syme 1981: 87; Martin, J. L. 1965; Swaine 1918a: 105, 107; Syme & Nystrom 1988: 83. (**ce**) Burks 1979: 859; Bushing 1965: 464; Felt 1906: 752; Hines, J. W. & Heikkinen 1977; Tomalak, Welch, & Galloway 1989: 3. (**hb**) Baker, W. L. 1972: 258; Blackman 1922b, 1950; Chamberlin 1939: 407; Doane et al. 1936; Felt 1906: 752; Hopkins 1894g, 1899c: 342, 447; Swaine 1918a: 105, 107. (**ds**) Anonymous 1926c: 519; Beaulne 1956; Blackman 1922b, 1950; Blatchley & Leng 1916: 637; Bright 1976d: 142; Chamberlin 1939: 407; Deyrup & Atkinson 1987b: 68; Dodge 1938; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 57; Henshaw 1882: 268, 1885: 147; Hopkins 1893a: 129, 146, 1893b: 208, 1894: 278, 1899: 427–429; Hubbard & Schwarz 1878b: 623; Kleine 1913b: 131,

1914b: 395; Leng 1920: 341; Leonard 1928: 519; Lindquist, O. H. & Syme 1981: 87; Schwarz 1886: 41; Swaine 1909: 133; Syme & Nystrom 1988: 83; Ulke 1902: 56; Wood, S. L. 1957c: 400, 1982b: 654. **(tx)** Balachowsky 1947; Blackman 1921: 15–16, 1922b: 110; Blatchley & Leng 1916: 637; Bright 1976d: 142; Chamberlin 1939: 407; Dodge 1938: 43, 47; Eichhoff 1878b: 280, 1896: 609; Hagedorn 1910a: 105; LeConte 1868: 161, 1876: 360–361, 1878b: 623–626; Lindquist, O. H. & Syme 1981: 87; Schwarz 1886: 41, 1891a: 168; Swaine 1909: 133, 1915a: 10, 1918a: 105, 107; Syme & Nystrom 1988: 83; Thomas, J. B. 1957: 4, 1967; Titus, Meikle, & Harrison 1985: 105; Wood, S. L. 1957c: 400, 1982b: 654. **(ms)** Eckstein 1900c. *lecontei* Swaine 1915a: 10. Holotype ♂; Marquette, Michigan [USA]; MCZ, Cambridge. Synonymy: Wood 1957c: 400.

References: **(cn)** Blackman 1950; Swaine 1918a: 105–106. **(ec)** Furniss, R. L. & Carolin 1977: 394. **(hb)** Blackman 1950; Chamberlin 1939: 406; Furniss, R. L. & Carolin 1977: 394; Swaine 1918a: 105–106. **(ds)** Blackman 1950; Chamberlin 1939: 406; Furniss, R. L. & Carolin 1977: 394; Knull 1932: 66; Leng 1920: 341. **(tx)** Balachowsky 1947: 44; Bright 1967b: 677; Chamberlin 1939: 406; Swaine 1915a: 10, 1918a: 105–106; Wood, S. L. 1957c: 400.

porifrons Eggers 1933: 50. Syntypes ♂ ♀; Cyprus; Eggers Collection, in NHMW, Wien. Distribution: Europe (Cyprus). Hosts: *Pinus halepensis*, *P. maritima*. References: **(cn)** Morris, H. M. 1937: 22; Schimitschek 1944: 187. **(hb)** Chararas 1962c: 358; Schedl 1962a: 147, 1981b: 84; Schimitschek 1944: 187. **(ds)** Georghiou 1977: 75; Kleine 1934a: 152; Pfeffer 1984: 277; Schedl 1962a: 147, 1967c: 75, 1981b: 84. **(tx)** Eggers 1933: 50; Schedl 1962a: 147, 1979c: 197, 1981b: 84.

quadridens (Hartig) 1834: 109 (*Bostrichus*). Syntypes, sex?; Pommern [Germany]; not located. Figures: Grune 1979: 132, Joly 1976b: figs. 147, 170, Pfeffer 1989a: pl. 9, Plaza & Gil 1982: 260. Distribution: Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Norway/ Poland/ Scotland/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia). Hosts: *Pinus* spp., *Abies* spp., *Picea* spp. References: **(ay)** Escherich 1923b: 484, 551; Feytaud 1950a; Fuchs 1911a; Scherb 1971; Scheyvrev 1889a: 22. **(bv)** Annala & Petaisto 1978; Baader 1989; Byers, Anderbrandt, & Lofqvist 1989; Eidmann 1965b; Grune 1979: 133; Heuer & Vite 1984a; Nuorteva 1956c: 51; Nuorteva & Nuorteva 1968; Rozhkov 1970: 147. **(cn)** Andersson & Lekander 1966: 684; Anonymous 1979p; Baader 1989; Badoux 1921: 163–173; Bakke 1956: 40–42, 1960: 313, 1968: 441–602; Barbey 1925: 229; Borodajewski 1930: 249–251; Browne 1968b: 563; Butovitsch & Spaack 1939: 1–120; Byers, Anderbrandt, & Lofqvist 1989; Chorbadzhevo 1929; Crooke 1956; Dehilen & Langstrom 1977; Eckstein 1926: 579; Ehnstrom et al. 1974; Eidmann 1965c, 1970a, 1973; Escherich 1917: 97–115, 1924: 484, 551; Eidmann & Klingstrom 1976: 239; Esterberg 1959; Feytaud 1950a; Florov 1949: 102; Fystro & Bakke 1962; Gabler 1955; Geschwind 1919: 111, 199; Gradojevic 1940; Grandi 1951; Hanson, H. S. 1940a; Hrubik 1973; Jablokoff 1953: 325; Jahn 1959: 220; Joly 1976; Judeich & Nitsche 1895: 501; Kamp 1950; Kangas 1932, 1934: 1–68; Kholodkovskii 1912: 310; Koch 1913: 118; Kozikowsky 1929: 254; Lekander 1952b: 5, 1955b: 17; Lekander & Rennerfelt 1955: 10; Lekander, M. 1951: 54; Lichtenstein & Picard 1918: 172–174, 1919: 62–64; Lindgren 1980a: 67; Maksimovic & Milanovic 1964, 1966; Mathiesen 1951: 229, 1952: 285; Mathiesen-Kaarik 1953: 10; Mercet 1926: 40–47; Muller 1912: 186; Mumford 1960: 37; Munro 1922: 136; Nestertschuk 1930: 176; Nuorteva & Nuorteva 1968; Nusslin 1913: 205; Ozols, C. E. 1960; Pfeffer 1933: 43; Pierce, W. D. 1917: 69; Rhumbler 1922: 323, 1927: 338; Rodzianko 1915: 1–15; Rykin 1951: 80–81; Saalas 1949: 344, 384; Schimitschek 1932a: 23, 1935b: 148, 1937c: 56, 1955a: 71, 73, 1955c: 89; Schwerdtfeger 1944a: 177, 1957a: 183; Sierpinski 1969a; Titova 1966; Tragardh 1917: 28, 1921e: 64, 1927c: 88; Tullgren 1916: 104; Vuillet 1913: 111–112; Wachtl 1901: 381; Weber, H. 1926: 579; Wichmann 1927b: 352; Zarco 1946a: 251. **(cc)** Annala & Petaisto 1978; Apfelbeck 1916b: 429–439; Bakke 1956a; Balachowsky & Chararas 1964; Balazy 1962; Balazy & Michalski 1960, 1964a; Barbey 1927; Brammanis 1940; Capek 1957; Chararas 1957d; Eidmann 1965c, 1974b; Graham 1969: 879; Haeselbarth 1967; Heqvist 1955d: 97, 1957a, 1963: 154, 1967: 70; Heuer & Vite 1984a; Hirschmann & Wisniewski 1982, 1983; Kangas 1937, 1971; Karpinski 1932a: 99; Kielczewski 1976; Kielczewski, Moser & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1983; Kleine 1908c: 214, 1909a: 76, 1944: 69; Kolubajiv 1954: 22; Kostin 1964: 117; Lovasz 1941: 195; Lichtenstein & Picard 1918: 173; Lundberg 1984; Mathiesen 1951: 229, 1952: 285; Mathiesen-Kaarik 1953: 10; Meyer 1918: 616; Michalski & Ratajczak 1989; Nosek 1959a: 118, 1959b: 87; Nunberg 1930: 203; Nunberg & Wiackowski 1958: 130; Nuorteva 1956a: 17, 1957b: 52, 1959d: 201, 1968a, 1970, 1971: 69; Nuorteva & Nuorteva 1968; Nusslin 1927: 338; Palmen 1944: 60, 1946: 195; Pettersen 1976b; Pfeffer 1923a: 332, 1925b: 3, 1933: 43, 1943b: 182, 1960: 346; Poinar 1975: 166; Popovic 1931: 57; Roubal 1934a: 86; Ruhm 1954c: 222, 1956b: 4; Saalas 1959: 344, 384; Schedl 1936f: 172; Schimitschek 1934a: 86, 1936a: 560, 1955a: 71, 73; Schwerdtfeger

- 1944a: 177, 1957a: 183; Sedlaczek 1908: 52, 1935a: 163; Seitner 1913a: 27; Seitner & Notzl 1925: 187–196; Szczepanski 1960a: 411; Thompson, W. R. 1943: 59; Titova 1966; Toth 1979; Tragardh 1917: 28, 1921e: 64, 1927a: 195, 1927c: 88, 1928: 776; Vaartaja 1947: 44; Virkki 1960: 3–16; Wachtl 1901: 381; Weber, H. 1926: 579; Wichmann 1927b: 352, 1954d: 438; Zarco 1946: 251; Zivojivonic 1960: 21–29. (hb) Annila & Petaisto 1978; Anonymous 1920: 64; Apfelbeck 1916b, 1917; Bakke 1960: 313, 1968b: 640; Barbey 1901: 26, 99, 1906c: 1925: 229; Beffa 1949, 1961; Bejer-Petersen 1957; Borodajewsky 1930b; Browne 1968b: 563; Chararas 1962c: 358; Charvat 1950; Chorbadzhievo 1929; Dombrowsky 1887, 1892; Eckstein 1926: 579; Eichhoff 1881a: 52, 259; Eidmann 1965b, 1974b; Eidmann & Klingstrom 1976: 239; Escherich 1923b: 484, 551; Feytaud 1950a; Fuchs 1904a; Gabler 1955; Cornostaev 1916: 312; Grandi 1951; Gyorfi 1957; Heinemann 1908a; Henschel 1895a: 185; Joly 1976; Judeich & Nitsche 1895: 501; Karpinski 1933b: 35; Karpinski & Strawinski 1948: 157; Keller 1910: 25; Kemner 1919: 170; Kholodkovskii 1912: 310; Knotek 1894a: 558, 1897: 160, 1898b: 333; Kostin 1960: 134; Lengerken 1939: 66, 1954: 86; Lindgren 1950a: 67; Loos 1913: 412; Michalski 1959a: 291; Munro 1926: 66; Nordlinger 1856: 22; Nosek 1959a: 118, 1959b: 87; Nuorteva 1956c: 51, 1968a, 1970; Nusslin 1898: 283, 1913: 205, 1927: 338; Petkov 1963: 219; Pfeffer 1941b: 3, 1989a: 70; Postner 1974: 444; Ratzeburg 1837: 159; Rhumbler 1922: 323, 1927: 338; Rozhkov 1970: 147; Saalas 1913a: 68, 88, 1949: 344, 384; Schedl 1962a: 154, 1981b: 84; Schmitschek 1939c: 274, 1955a: 71, 73; Schwerdtfeger 1944a: 177, 1957a: 183, 1981: 190; Sedlaczek 1935a: 163; Spessivtsev 1913a: 70, 1923: 213; Stark 1926a: 337, 1952: 390; Tragardh 1914: 83, 1921e: 64, 1927c: 88, 1939b: 151, 226; Tschorbadjiev 1929: 172; Wachtl 1876a: 460, 1901: 381; Weber, H. 1926: 579; Wichmann 1927b: 352; Wilkinson 1935: 71–72. (ds) Acloque 1896; Ammann & Knabl 1913, 1923; Angus 1964: 179; Anonymous 1979p; Audras & Schaefer 1957; Badonx 1921; Bakke 1960: 313, 1968a: 640; Balachowsky 1947: 44, 1949a: 251; Balazy & Michalski 1960; Barthé 1896; Bedel 1888b: 402, 419; Beffa 1949; Bejer-Petersen & Jorun 1977: 28; Bistrom & Vaisanen 1988: 42; Borchert 1951; Brakman 1966b: 207; Browne 1968b: 563; Bruce 1944: 28; Brudin 1934; Buckingham 1932; Buresh & Lazarov 1956; Butovitsch & Heqvist 1947; Charvat 1950; Chorbadzhievo 1924d, 1929; Csiki 1914; Eder 1934; Eggers 1904; Eidmann 1974b; Endrodi 1958a, 1958b; Ericson & Sandin 1893; Escherich 1923b: 484, 551, 1932b; Esterberg 1928, 1951; Fjellberg 1966: 154; Fowler 1891; Fuchs 1904a, 1905a; Furniss 1968: 1384–1389; Georgion 1977: 75; Gillerfors 1966; Cornostaev 1917: 308–315; Grill 1895: 311; Grouzelle 1905; Grune 1979: 133; Hagedorn 1904e, 1910d: 58; Hansen, V. 1939, 1956, 1964: 464; Heinemann 1908a; Hellen 1947; Helliesen 1916: 84; Hennig 1954: 257, 261; Henschel 1895a: 185; Heyden, Reitter, & Weise 1891: 672, 1906: 712; Horion 1951; Jablokov 1953: 325; Jannicky 1960a; Jazentkovsky 1912: 289; Joly 1976; Judeich & Nitsche 1895: 501; Kaltenbach 1874: 685; Kangas 1971; Karpinski 1925: 216, 1926: 82, 1931: 26, 34, 1932a: 99, 1933b: 35; Karpinski & Strawinski 1948: 157; Keler 1922b: 211; Keller 1910: 25; Kemner 1919: 170; Kersten 1933: 76; Kiefer et al. 1942: 529; Klefbeck & Sjoberg 1960: 232; Kleine 1912a: 262, 267, 1913a: 35, 1913b: 131, 1934a: 152; Kloft & Hinks 1945: 218; Knotek 1892a: 38, 1894a: 558, 1898b: 333; Kolubajiv 1934: 64; Kozikowsky 1921: 181; Kozikowsky & Kuntze 1925: 20; Krivolutsкая 1983; Krogerus 1921b: 115; Kurir 1947c: 6; Langhoffer 1915c: 158; Leclercq 1971; Lekander 1955b: 17; Lindberg & Saris 1952: 59; Lomnicki 1913b: 146; Loos 1913: 412; Lovendal 1890c: 209; Lucht 1987: 279; Lundbald 1950c: 116; Lundberg 1974: 92, 1979: 31; Matthews & Fowler 1883: 42; Mequignon 1936: 15, 37; Mercet 1929: 19–22; Moragues 1889: 32; Mumford 1960: 37; Munro 1920, 1922: 136, 1926; Munster 1928: 290; Numborg 1928b: 88, 114, 1930: 200–208, 1954: 74; Nuorteva 1971: 67; Nusslin 1898: 283; Palm 1947a: 172; Palmen 1944: 60, 1946: 195; Perris 1876a: 254, 1877a: 414; Pettroni 1943: 175; Pfeffer 1924b: 472, 1928b: 3, 1933: 3–54, 1934b: 74, 1947c: 11, 1960: 346, 1984: 277, 1989a: 70; Pierce, W. D. 1917: 69; Platonoff 1943: 141; Plaza & Gil 1982: 260; Pomerantzev 1907b: 493; Postner 1974: 444; Prossen 1913: 83; Rapp 1934: 730; Ratzeburg 1837: 159; Reitter 1894a: 78, 1916: 301; Roubal 1935b: 73, 1941: 271; Rozhkov 1970: 147; Rye 1867: 93; Saalas 1913a: 68, 88, 1931: 69; Sahlberg 1900: 106; Sainte-Claire & Mequignon 1938: 448; Schaufuss 1915: 1246; Schamm 1862: 101; Schedl 1962a: 154, 1967c: 72, 1980a: 25, 1981b: 84; Schilsky 1909: 188; Schreiner 1897: 369; Schwarz 1886: 41; Schwerdtfeger 1981: 190; Seidlitz 1872: 394, 1891a: 565, 1891b: 610; Sharp & Fowler 1893: 35; Sparr-Schneider 1889: 61; Stark 1926a: 337, 1926b: 105, 1926j: 127, 1931a: 27, 1936c: 147, 1952: 390; Stein & Weise 1877: 165; Stierlin 1898: 442; Stierlin & Gautard 1906: 205; Strand 1946: 603; Sturm 1826: 102; Thomson 1868: 522; Tragardh 1914: 83, 1917: 1–28, 1939b: 151, 226; Tredl 1907: 15; Tschorbadjiev 1929: 172; Wachtl 1876a: 460; Wegelin 1960: 107; West 1938: 184; Wichmann 1927a: 74; Winter, T. C. 1983: 22; Yanovskii & Tegshzhargal 1985: 415; Zinovjev 1955: 187; Zivojivonic 1960; Zolk 1937: 147–172. (tx) Acloque 1896; Balachowsky 1947, 1949a: 251; Barbey 1901: 26, 99, 1906c; Bedel 1888b: 402, 419; Beffa 1949, 1961; Bejer-Petersen 1957; Ceballos 1945; Charvat

- 1950; Chorbadzhievo 1924d; Dombrowsky 1887, 1892; Duffy 1953; Eggers 1910e: 38, 1922c; Eichhoff 1881a: 52, 259, 1883a: 114, 139, 1883b: 219; Endrodi 1957a: 307, 1957b; Escherich 1923b: 484, 551; Fauvel 1887, 1889; Ferrari 1867a: 33, 35, 1867b: 114; Fleischer 1927; Formanek 1907: 40; Fraser 1920; Fuchs 1911a, 1912: 308–310, 1914: 188–189, 1922: 17; Gabler 1955; Gebien 1907: 197; Grune 1979: 132–133; Hagedorn 1910a: 105; Hansen, V. 1956, 1964: 464; Hartig 1834: 109; Henschel 1885a, 1895a: 185; Iablokoff-Khinzorian 1961: 105; Joly 1976, 1976b: fig. 147, 170; Judeich & Nitsche 1895: 501; Kalina 1970: 127; Karpinski & Strawinski 1948: 157; Knotek 1892a: 38; Koch 1913: 118, 1932: 124; Kuhn 1913: 1057; Lovendal 1889b: 65, 1890c: 209, 1898: 172; Lucht 1987: 279; Nordlinger 1848: 239, 1856: 22; Numberg 1954: 74; Perris 1877a: 414; Pfeffer 1932b: 24, 1941b: 3, 1946b: 116, 1947e: 11, 1948: 116, 1955a: 231, 1989a: pl. 9; Plaza & Gil 1982: 260, 262; Portevin 1935: 335; Postner 1974: 444; Quaschik 1953: 35; Ratzeburg 1837: 159; Reitter 1894a: 78, 1913a: 100, 1916: 301; Rhumbler 1922: 323, 1927: 338; Saalas 1913a: 68, 88, 1919, 1949: 344, 354; Schedl 1934f: 1644, 1952f: 87, 1962a: 154, 1980a: 25, 1981b: 84; Scherb 1971; Scheyrew 1889a: 22; Schimitschek 1937c: 56, 1955c: 89; Schwarz 1886: 41; Seidlitz 1872: 394, 1891a: 565, 1891b: 610; Spessivtsev 1913a: 69–70, 1922a: 480, 487, 490, 1925a: 186, 1925b: 23; Stark 1935: 147, 149, 1952: 390; Stierlin 1898: 442; Thomson 1868: 222; Wachtl 1895: 8; Weber, L. 1912: 30. (**ms**) Escherich 1932b; Kozikowsky 1929: 254; Michalski 1959a: 291; Seitner 1913a: 27; Weber 1912: 30.
- rudnevi Sokanovskii** 1959a: 278. Syntypes ♂ ♀; Sedanka, non loin de Vladivostok, USSR; Sokanovskii Collection.
Distribution: Asia (E USSR).
Hosts: *Picea obovata*.
References: (**tx**) Schedl 1962a: 157; Sokanovskii 1959a: 277–278.
- saalasi Eggers** 1914: 188. Lectotype ♂; Kirchspiel Kittila im finnischen Lappmarken; USNM, Washington, designated by Anderson & Anderson 1971: 28.
Figures: Grune 1979: 128, Yin, Huang, & Li 1984: 125.
Distribution: Asia (Liaoning, Gansu in China/ Mongolia/ E USSR), Europe (Finland/ Norway/ Poland/ Sweden/ W USSR).
Hosts: *Picea asperata*, *P. balfouriana*, *P. excelsa*, *P. obovata*, *P. schrenkiana*.
References: (**bv**) Grune 1979: 129; Hellen 1921. (**cn**) Hellen 1921; Juutinen 1960: 25; Palm 1946: 122. (**ec**) Kangas 1946b: 23; Kleine 1944: 74; Kostin 1964: 114; Nuorteva 1971; Pfeffer 1960: 345; Saalas 1917a: 18. (**hb**) Karpinski & Strawinski 1948: 157; Kostin 1960: 134; Postner 1974: 442; Saalas 1913a: 69, 87; Schedl 1962a: 144; Shatilov 1985; Stark 1952: 383. (**ds**) Grune 1979: 129; Hansen, V. 1939; Hellen 1947; Karpinski 1948a: 173; Karpinski & Strawinski 1948: 157; Klefbeck & Sjoberg 1960: 232; Kleine 1934a: 152; Krivolntskaya 1983; Lundberg 1961: 68; Numberg 1954: 74; Nuorteva 1971: 67; Pfeffer 1960: 345; Platinoff 1943: 141; Postner 1974: 442; Saalas 1913a: 69, 87, 1917a: 18, 1931: 70; Schedl 1962a: 144; Sokanovskii 1960; Stark 1931a: 27, 1936c: 145, 147, 1952: 383; Stenin 1936: 3, 18; Strand 1946: 603; Yanovskii & Tegshzhargal 1985: 411; Yin, Huang, & Li 1984: 124. (**tx**) Anderson, W. H. & Anderson 1971: 28; Balachowsky 1947; Eggers 1914: 188–189, 1922c: 16, 1933f: 51; Grune 1979: 128–129; Karpinski & Strawinski 1948: 157; Lebedev 1926: 121–123; Michalski 1969b: 570; Numberg 1954: 74; Pfeffer 1946b: 114, 1955a: 224; Postner 1974: 442; Saalas 1913a: 69, 87, 1914: 87, 1916: 91–85, 110–116; Schedl 1934f: 1644, 1962a: 144, 1979c: 217; Sokanovskii 1960: 676; Spessivtsev 1922a: 481, 1931: 68; Stark 1935: 145, 1952: 383; Yin, Huang, & Li 1984: 124. (**ms**) Hellen 1921.
saalasi niger Sokanovskii 1960: 676. Syntypes, sex?, Irkutsk, USSR; Sokanovskii Collection.
Synonymy: Schedl 1962a: 114.
References: (**ds**) Yanovsky & Tegshzhargal 1985: 411. (**tx**) Schedl 1962a: 114; Sokanovskii 1960: 676.
- scitius Blandford** 1893: 63. Syntypes 2♂ 2♀; published as East India, labeled Sibsagar, Assam, India; FRI, Dehra Dun.
Figures: Yin & Huang 1981: 562.
Distribution: Asia (Yunnan in China/ Assam, Himachal Pradesh, Kashmir, Punjab, Uttar Pradesh in India/ Nepal/ Pakistan).
Hosts: *Cedrus deodara*, *Pinus excelsa*, *P. gerardiana*, *P. roxburghii*.
References: (**ay**) Gardner 1934b: 1–17. (**cn**) Browne 1968b: 563; Huque 1966; Stebbing 1914: 567. (**cc**) Beeson 1922c: 496; Chararas 1959c; Stebbing 1914: 567. (**hb**) Beeson 1922c: 496; Browne 1968b: 563; Cotes 1893a; Stebbing 1909b: 14, 30, 1911a: 3, 1914: 567. (**ds**) Beeson 1922c: 496; Bhasin, Roonwal, & Singh 1958; Browne 1968b: 563; Cotes 1893a; Hagedorn 1910d: 58; Kleine 1913b: 131, 1914b: 270, 1934a: 152; Miwa 1931: 269; Qadri 1951a: 368, 1951c: 238; Schedl 1973b: 210, 1974a: 87; Zethner 1973. (**tx**) Blandford 1893: 63; Gardner 1934b; Hagedorn 1910a: 105; Stebbing 1899: 64, 1908b: 1, 1909b: 14, 30, 1914: 567.
coniferae Stebbing 1909b: 30 (*Pityophthorus*).
Holotype ♀; L. Chilzoga, Shingbai, Zhob (Baluchistan) [Pakistan]; FRI, Dehra Dun.
Synonymy: Beeson 1922c: 496.
References: (**cn**) Huque 1966; Pierce, W. D. 1917: 52; Stebbing 1903a: 242, 1905: 8, 1914:

- 562; Troup 1916: 1–126. (**cc**) Stebbing 1914: 562. (**hb**) Stebbing 1903a: 242, 1908a: 111, 1909b: 14, 30, 1910, 1911a: 6, 1914: 562. (**ds**) Hagedorn 1910d: 52; Kleine 1913b: 131, 1914b: 270; Pierce, W. D. 1917: 52; Qadri 1951b: 67; Stebbing 1903a: 242; Yin & Huang 1981: 562. (**tx**) Beeson 1922c: 496; Hagedorn 1910a: 104; Stebbing 1909b: 14, 30, 1914: 562; Yin & Huang 1981: 562.
- seirindensis** Murayama 1929: 26. Holotype ♂; Cheongrim dong (Korea); Murayama Collection in USNM, Washington.
Figures: Nakane et al. 1963: pl. 192, Nobuchi 1974: pls. 1–2, Yin, Huang, & Li 1984: 124 (female frons).
Distribution: Asia (Heilongjiang, Sichuan in China/ Japan/ Korea/ Kuril Islands/ Sakhalin Island/ E USSR).
Hosts: *Picea ajanensis*, *P. asperata*, *P. jezoensis*, *P. koraiensis*, *P. microsperma*, *P. obovata*, *Abies nephrolepis*, *Pinus koraiensis*.
References: (**cn**) Anonymous 1980g; Inouye 1955; Inouye & Yamaguchi 1955a: 218, 235; Kurenzov 1935c: 188. (**cc**) Inouye & Yamaguchi 1955a: 218, 235; Inouye et al. 1955: 78; Nishiguchi 1960c. (**hb**) Inouye et al. 1955: 78; Krivolutsкая 1956: 834; Kurenzov 1935a: 20, 40, 1948b: 110; Qiu & Huo 1958: 267; Schedl 1962a: 138; Stark 1952: 380. (**ds**) Anonymous 1980g; Cho 1957; Choo 1983: 87; Choo & Woo 1985: 165; Kleine 1934a: 152; Ko 1969: 281; Krivolutsкая 1956: 834, 1983; Kurenzov 1935a: 20, 1935c: 188, 1936a: 113, 1938a: 59; Murayama 1929b: 2, 1929c: 23, 1930a: 2, 1930b: 15, 1936b: 116, 1937b: 375, 1942a: 55, 1954b: 201; Nakane et al. 1963: 383; Nishiguchi 1960: 64–73; Nobuchi 1974: 40; Schedl 1962a: 138; Stark 1936e: 145, 1952: 380; Yin, Huang, & Li 1984: 124. (**tx**) Choo 1983: 87; Kono 1938: 69; Krivolutsкая 1956: 834, 1958: 174–175; Kurenzov 1941a: 199–200, 1948b: 110; Murayama 1929: 26, 1930b: 15, 19, 31, 1937b: 375, 1954b: 201; Nakane et al. 1963: 383, pl. 192; Nobuchi 1974: 40, pl. 1, 2; Schedl 1934f: 1644, 1962a: 138, 1962q: 493; Stark 1938: 145, 148, 1952: 380; Yin, Huang, & Li 1984: 124.
- aizawai** Kono 1938: 69. Holotype ♂; Japan: Sachalin, Horo; apparently in Kono Collection. Synonymy: Krivolutsкая 1958: 175.
References: (**cc**) Ishii 1939: 191. (**hb**) Krivolutsкая 1956: 834; Stark 1952: 381. (**ds**) Kono 1938b: 65, 69; Kono & Tamanuki 1939: 90, 94; Krivolutsкая 1956: 834; Schedl 1962a: 139; Stark 1952: 381. (**tx**) Kono 1938: 69; Krivolutsкая 1956: 834, 1958: 175; Schedl 1962a: 139; Stark 1952: 381.
- nitidus** Eggers 1941b: 121. Syntypes 1♂, 2♀; Ussurigebiet; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1962a: 493.
- Notes: (1) Schedl 1979c: 170 (citation of holotype invalid).
References: (**tx**) Eggers 1941b: 121; Pfeffer 1946b: 114; Schedl 1962a: 493, 1979c: 170; Sokanovskii 1954: 19.
- spessittsevi** Lebedev 1926: 120. Holotype ♂?; Talas-Aaltau, Syr-Darja-Gebiet, Turkestan; Lebedev Collection.
Distribution: Asia (Xinjiang in China/ Kashmir, Uttar Pradesh in India/ E USSR).
Hosts: *Picea schrenkiana*, *P. morinda*, *Pinus excelsa*, *P. Gerardiana*, *P. roxburghii*.
Notes: (3) Beeson 1941 (1961: 291) (used *per-fossus*, nomen nudum, for this species, synonymy in Sokanovskii 1954: 19).
References: (**hb**) Schedl 1962a: 146; Stark 1952: 387. (**ds**) Kadyrov 1989; Kleine 1934a: 152; Marikovskii 1956: 73; Parfentev 1951: 429–431; Schedl 1962a: 146, 1969c: 51; Stark 1936e: 146, 1952: 387; Yin, Huang, & Li 1984: 125. (**tx**) Beeson 1941 (1961: 291); Eggers 1933f: 50–51; Lebedev 1926: 120; Murayama 1929: 29–30; Pfeffer 1946b: 116; Schedl 1934f: 1644, 1962a: 146; Sokanovskii 1954: 19, 1960: 676; Stark 1936: 146, 1952: 387; Yin, Huang, & Li 1984: 125.
- trepanatus** (Nordlinger) 1848: 239 (*Bostrichus*). Syntypes, sex?; Stuttgart, Germany; NHMW, Wien, lost.
Figures: Grune 1979: 130, Pfeffer 1989a: pl. 9, Plaza & Gil 1982: 260, 262.
Distribution: Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Hungary/ Italy/ Norway/ Poland/ Romania/ Scotland/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).
Hosts: *Pinus austriaca*, *P. heldreichii*, *P. peuce*, *P. sylvestris*.
References: (**ay**) Chararas 1977b; Escherich 1923: 484, 553; Fuchs 1911a. (**bv**) Chararas 1977b; Grune 1979: 131. (**cn**) Androic 1951: 396–399, 1966: 49; Escherich 1923b: 484, 553; Hanson 1940a; Koch 1913: 122; Maar & Voore 1935: 641–651; Marcu 1926c: 66; Muller 1912: 186; Nusslin 1913: 282; Pierce, W. D. 1917: 74; Rhumbler 1927: 339; Schimitschek 1937c: 56, 1955c: 88; Schwerdtfeger 1944a: 177, 1957a: 183; Sierpinski 1966: 60; Wichmann 1927b: 352. (**cc**) Karpinski 1932a: 101; Kostenko 1929; Masutti 1959: 268, 301; Meyer 1934a: 616; Michalski & Ratajczak 1989; Nuorteva 1957b: 53; Nusslin 1927: 339; Pfeffer 1960: 346; Ruhn 1956b: 4; Schwerdtfeger 1944a: 177, 1957a: 183; Sedlacek 1935a: 163; Thompson, W. R. 1943: 59; Tragardh 1927a: 195, 1928: 776; Vaartaja 1947: 44. (**hb**) Androic 1951; Barbey 1901: 2, 26, 96; Chararas 1962c: 352, 1977b; Charvat 1950; Escherich 1923b: 484, 553; Fitze 1954a; Györfi 1957; Kangas 1949c; Karpinski 1933b: 35; Karpinski & Strawinski 1948: 157; Løngerken 1939: 65, 1954: 86; Masutti 1959: 268,

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Schimitschek 1937c: 56, 1955c: 88; Schmidt, G. 1980: 24; Spessivtsev 1922a: 481, 1923: 214, 1925a: 185; Stark 1936: 145, 147, 1952: 384; Weber, L. 1912: 30; White, R. E. 1983: 331–332. **(ms)** Eggers 1910b; Escherich 1932b; Sedlacek 1913: 453; Weber, L. 1912: 30.

austriacus Wachtl 1887: 320 (*Tomicus*). Syntypes, sex?; Denmark; not located. Synonymy: Balachowsky 1949a: 246.

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elongatus Lovendal 1889b: 61 (*Tomicus*). Syntypes, sex?; Denmark; not located. Synonymy: Balachowsky 1949a: 246.

References: **(ay)** Fuchs 1911a. **(hb)** Androic 1951. **(ds)** Androic 1951; Eggers 1912d; Felt 1906: 482; Fowler & Donisthorpe 1913: 199; Grill 1895: 311; Lovendal 1889a: 271, 1890c: 208; Reitter 1894b: 15; Sahlberg 1900: 105; Schilsky 1909: 188. **(tx)** Balachowsky 1949a: 246; Bergroth 1893; Eggers 1912c: 208–209, 1912d: 1–4; Fuchs 1911a; Lovendal 1889b: 23, 1889b: 61, 1890c: 208, 1898: 166; Reitter 1889d: 271, 1894b: 15, 1913a: 97; Schedl 1934f: 1644; Spessivtsev 1922: 481, 490. **(ms)** Reitter 1889d: 271.

Genus *Pityokteines* Fuchs

PITYOKEINES FUCHS 1911: 33. Type-species: *Ips curvidens* Germar, subsequent designation by Hopkins 1914: 127.

Orthotomides Wood 1951b: 32. Type-species: *Orthotomicus lasiocarpi* Swaine, original designation. Synonymy: Wood 1975a: 35.

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Keys: Bright 1976d: 145, Swaine 1918a, Wood 1982b: 656 for North America; Balachowsky 1949a: 255, Grune 1979: 137, Reitter 1913a: 102, Schedl 1981b: 85, Stark 1952: 421 for Europe.

References: **(ay)** Nobuchi 1969a: 65. **(hb)** Wood, S. L. 1986a: 68. **(ds)** Scheerpeltz & Winkler 1930: 258; Wood, S. L. 1986a: 68. **(tx)** Balachowsky 1949a: 259; Bright 1976d: 145; Bright & Stark 1973: 80; Chamberlin 1939: 432–435; Dodge 1938: 19; Fuchs 1911: 33; Hopping 1963b: 61; Karaman

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- curvidens (Germar)** 1824: 462 (*Tomicus*). Syn-types, sex?: Schandaviae in Saxonia; not located. Figures: Alkan 1946: 113, Balachowsky 1949a: 255–256, Barbey 1925: 157, Grune 1979: 138, Joly 1976b: 144, 147, Postner 1974: 446. Distribution: Africa (introduced to South Africa), Asia (Japan/ Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ France/ Germany/ Greece/ Hungary/ Italy/ Luxemburg/ Poland/ Romania/ Spain/ Switzerland/ Yugoslavia), South America (introduced to Argentina). Hosts: *Abies pectinata*, *A. spp.*, *Larix europea*, *Pinus spp.*, *Picea spp.* References: (ay) Chararas, Chipoulet, & Courtois 1979; Escherich 1923b: 449, 486, 604; Feytaud 1940a; Fuchs 1911a; Heeger 1866; Klimesch 1914: 216; Leisewitz 1906: 98; Lekander 1959b: 23; Marcus 1930: 644; Numberg 1928a: 141; Nusslin 1911a: 2; Sedlacek 1902b: 244; Wichmann 1912a: 10. 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(ec) Annala & Perttunen 1964: 42; Apfelbeck 1916b; Balazy & Michalski 1964b; Barbey 1906a; Belanowskii 1930; Brauns 1950a; Bucher 1963: 134; Capek 1957; Chararas 1958b: 83–131, 1959a, 1959b, 1959c: 113–129, 1959d, 1959e; Chararas et al. 1982: 1094; Cooreman 1963: 46; DeLeon 1935a; Elliot & Morley 1907; Fleischer 1877a; Fuchs 1914a, 1929a, 1937; Fuhrer 1985; Galoux 1947d; Gauss 1954a: 423; Gillanders 1906; Gyorfi 1952b; Haenel 1914; Haeselbarth 1962: 283; Hesko 1966: 533–540; Hierholzer 1950, 1954a: 329, 1954b: 385; Hirschmann 1960, 1971a, 1971b: 40, 1978c; Hirschmann & Wisniewski 1983; Hirschmann & Zirmigiebl-Nicol 1961; Hubault 1923a; Joly 1949a: 7; Kakuliya & Shalibashvili 1976b; Karpinski 1932a: 95, 1948: 231; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1980b, 1983;

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(**hb**) Alkan 1946: 113; Altum 1881c: 302; Apfelbeck 1916b: 429–439, 1917; Bach 1864; Barbey 1901: 10, 26, 93, 1913, 1925: 156, 1942; Bargmann 1897, 1898b, 1899a, 1900, 1904, 1906; Baudisch 1885, 1893, 1905a, 1905b; Beffa 1949, 1961; Bezares 1929; Blanchere & Robert 1889; Bonnemaïson 1953; Borcea 1924; Brandt 1948; Braun 1941c; Cecconi 1906, 1924; Chararas 1962c: 258; Charvat 1950; Chittenden 1890; Chorbadzhievo 1929; Coudroy 1981a; Coulon 1949; Dombrowsky 1887, 1892; Dzhambazishvili 1961: 751–757, 1962; Eckstein 1889, 1897, 1915, 1926: 574; Eichhoff 1881a: 51, 245, 1882a: 241, 1882c: 705, 1892c: 99; Escherich 1923b: 449, 486, 604; Everts 1900; Feytaud 1946, 1950a; Fleischer 1877a; Fuchs 1904a; Furst 1888: 112; Gabler 1955; Gayler 1951; Gillanders 1906; Girard 1873; Györfi 1957; Hagedorn 1903a; Hartig 1861: 325; Heeger 1866; Helmbacher 1924; Hennings 1908a, 1908b, 1908c: 227, 1908d; Henschel 1876a: 113, 238, 1879b, 1895a: 182; Hess 1898: 357; Hess & Beck 1914: 281, 1927: 337; Hierholzer 1949; Hopkins 1899c: 310; Hufnagl 1887: 512; Hufnagl & Puszyr 1951: 109, 121; Ilse 1898: 300; Joly 1949a: 7, 1976; Judeich 1875a: 263; Judeich & Nitsche 1895: 489; Kahlich 1865b; Kamp 1951c; Karpinski & Strawinski 1948: 157; Karsch 1883: 141; Kauschinger 1883: 105, 1893: 143; Kholodkovskii 1912: 286, 316; Knotek 1894a: 558, 1897: 153, 1898b: 327, 1899a: 19; Kollar 1857: 187; Kraemer 1950b: 349–430; Lekander 1959a: 83, 1959b: 23; Lengerken 1939: 36, 1954: 87; Loeffler 1854: 172; Lohrenz 1907: 44; Loos 1913: 411; Louzil 1961: 44; Madon 1930: 99; Maksymov 1950: 499; Masutti 1964; Moser 1952: 176; Nishiguchi 1970; Nordlinger 1856: 20, 1864a: 260, 1870b: 261; Novak, V., Hrozinka, & Stary 1976: 70; Nunberg 1929a: 113, 1929c: 123; Nusslin 1898: 282, 1906b: 14, 1913: 206, 1927: 324; Ohnesorge 1953: 439, 1955: 279; Orest 1926a: 70, 1927: 59; Ow 1948: 153; Packard 1890: 29; Perris 1856a: 244; Pfeffer 1941b: 16, 1989a: 73; Postner 1974: 446; Prell 1930c: 643, 1931: 369; Ratzeburg 1837: 156, 1839: 169, 190, 1871c: 82; Rey 1900a: 94; Rhumbler 1922: 311, 1927: 325; Rimski-Korsakov et al. 1949: 291; Rupertsberger 1879: 231, 1880: 231; Schimitschek 1929: 83, 1930a: 326, 340, 1944: 219, 1955a: 86, 89; Schmidt 1881: 33; Schneider-Orelli 1947b: 157, 1947c: 94; Schroder 1896: 357; Schwerdtfeger 1944a: 182, 1957a: 187, 1981: 193; Sedlaczek 1921: 335, 1935a: 155; Sekendiz 1987; Spessitsev 1913a: 77; Stark 1952: 421; Stebbing 1911a: 2; Szujecki 1955: 242; Taschenberg 1880: 220, 227; Tschorbadzhiev 1929: 173; Vasechko 1971a, 1971b; Wachtl 1876a: 460, 1901: 381; Weber, H. 1926: 574; Weidenbach 1845: 116; Weiser 1961a; Wichmann 1927b: 348, 356; Wolff & Krausse 1922: 96. (**ds**) Acloque 1896; Ammann & Knabl 1923; Andersch 1951; Androic 1966: 48; Anonymous 1978i; Arru, Covassi, & de Bellis 1966: 32; Audras & Schaefer 1957; Barthe 1896; Bau 1888; Baudisch 1899; Beffa 1949; Bezares 1929: 83–107; Bielz 1851, 1887; Blackwelder 1947; Blanchere & Robert 1889; Borcea 1924; Brakman 1966b: 207; Brancsik 1871; Bruch 1914a; Buresh & Lazarov 1956; Calver 1884, 1893; Capek et al. 1957; Cecconi 1895, 1897, 1906; Chapuis & Candeze 1853; Charvat 1950; Chittenden 1890; Chorbadzhievo 1924d, 1929; Eggers 1904; Endrodi 1958b; Escalera 1919; Escherich 1923b: 449, 486, 604, 1932b; Everts 1900, 1925; Favre 1890; Fricken 1889: 346; Fuchs 1904a, 1905a; Gabler 1949b; Gail 1906; Gaubil 1849: 126; Gemminger & Harold 1872: 2690; Gobang 1870: 133; Gozis 1875: 80; Grandi 1951; Gredler 1875: 115; Grune 1979: 139; Hagedorn 1903a, 1910d: 52; Hellen 1947; Hennig 1954: 257; Henschel 1895a: 182; Heyden 1876: 300; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 712; Horion 1951; Hubault 1923b; Jacentkovsky 1933: 271, 1939: 76; Jazentkovsky 1912: 291; Joly 1949b: 254, 1976; Judeich & Nitsche 1895: 489; Kahlich 1865b; Kailidis 1964a, 1966a, 1966b: 55, 1985; Kailidis & Georgevits 1972; Kailidis & Markalas 1988; Kaltenbach 1874: 685; Kamp 1951c; Karpinski 1925: 21, 1926: 83, 1931: 19, 1932a: 95, 1948b: 231; Karpinski & Strawinski 1948: 157; Keler 1925b: 275; Kestercanek 1881a: 12; Kleine 1912a: 262, 264, 268, 1913a: 35, 1913b: 127, 1914b: 257, 1934a: 151; Knotek 1892a: 37, 1894a: 558, 1898b: 327; Koltze 1901: 153, 318; Kolubajiv 1934: 64; Koschitsky 1900: 83; Kovacevic 1957: 67; Kraatz 1869: 59; Kraemer 1948: 133; Krivosheina & Mamaev 1986: 97; Krol 1877: 34; Kudela 1946a: 338;

- Kulczynski 1873: 109; Kurir 1947c: 18; Lacordaire 1866: 383; Langhoffer 1915c: 158; Leclercq 1971; Lentz 1857: 139; Lohrenz 1907: 44; Lokaj 1868: 64; Lomnicki 1886a: 243, 1913b: 148; Loos 1913: 411; Lucht 1987: 279; Malazgirt 1966: 64; Marcu 1926c: 66, 1928: 327–336; Mequignon 1936: 15, 38; Michalski 1957: 166; Mokrzecki 1928: 273; Murayama 1936a: 128, 1936b: 113, 1942a: 56, 1954b: 170, 201; Negru 1966b: 403, 1968a: 457; Nobuchi 1974: 41; Nunberg 1928b: 88, 115, 1954: 79; Nusslin 1898: 282; Oliveira 1887: 328; Orest 1926c: 66; Ortzen 1886: 280; Pacher 1865: 152; Perris 1876a: 254, 1877a: 414; Pfeffer 1924b: 472, 1928b: 7, 1935: 159, 1947d: 129, 1950b: 73, 1960: 345, 1989a: 73; Pierce, W. D. 1917: 73; Pittioni 1943: 175; Plaza & Gil 1982: 256; Postner 1974: 446; Prossen 1913: 83; Rapp 1934: 732; Ratzeburg 1837: 156, 1839: 169, 190; Redtenbacher 1858: 834, 1874: 378; Reitter 1869b: 154, 1894a: 85, 1897b: 244, 1916: 302; Rimski-Korsakov et al. 1949: 291; Roubal 1935b: 73, 1936b: 193, 1941: 274; Ruskov 1928c: 62; Sainte-Claire 1938: 449; Schaschl 1854: 133; Schaufuss 1915: 1246; Schaum 1859: 96, 1862: 101; Schedl 1959h: 100, 1961b: 184, 1967c: 72, 1980a: 26, 1981b: 86; Scheerpeltz & Winkler 1930: 258; Schilsky 1909: 188; Schwerdtfeger 1981: 193; Seidl 1876: 5; Seidlitz 1872: 396, 1891a: 566, 1891b: 612; Sekendiz 1987; Solla 1893: 217; Souphieff & Scherbinovskaja 1937: 102; Stark 1927b: 90, 1952: 421; Stein 1868: 114; Stein & Weise 1877: 165; Stierlin 1898: 444; Stierlin & Gautard 1871: 294, 1906: 206; Strohmeyer 1912e: 250; Sturm 1843: 230; Szujewski 1955: 242; Tredl 1907: 16; Tschorbadjev 1929: 173; Wachtl 1876a: 460; Westhoff 1882: 239; Wichmann 1924: 16–18, 1927a: 76; Wiepken 1883: 89; Wilke 1931: 636; Zoufal 1920: 21. (tx) Acloque 1896; Alkan 1946: 113; Altman 1844; Bach 1854, 1864; Balachowsky 1949a: 258; Barbey 1901: 10, 26, 93; Bargmann 1897b, 1898b; Beffa 1949, 1961; Bertolini 1872; Blanchere & Robert 1889; Brancsik 1871; Calwer 1858; Chamberlin 1939: 432; Chapuis & Candeze 1853; Charvat 1950; Chorbazhiev 1924d; Dombrowsky 1887, 1892; Eggers 1923b; Eichhoff 1864b: 42, 1877c: 388, 1878b: 275, 1881a: 51, 245, 1883a: 113, 139; Endrodi 1957b; Escherich 1923b: 449, 486, 604; Escherich & Escherich 1897; Fauvel 1889; Ferrant 1911; Ferrari 1867: 43; Fleischer 1905, 1927; Formanek 1907: 43; Fricken 1889: 346; Fuchs 1911a; Gabler 1949b, 1955; Germar 1824; Girard 1873; Grune 1979: 138–139; Hagelodm 1910a: 104; Henry 1892: 10–11; Henschel 1876a: 113, 238, 1885a, 1895a: 182; Hopkins 1914: 127; Jacobson 1895: 521; Jacquelin du Val & Fairmaire 1868: 107; Joly 1976, 1976b: fig. 144, 147; Judeich & Nitsche 1895: 489; Kalina 1975; Karpinski & Stravinski 1948: 157; Knotek 1892a: 37; Koch 1928: 117, 1932: 93; Lacordaire 1866: 383; Lekander 1959b: 23; Letzner 1891: 376; Lemnis 1886: 780; Louzil 1961: 108; Lucht 1987: 279; Meixner 1937: 1214; Murayama 1936a: 128, 1954b: 170, 201; Negru 1966b: 403; Niisima 1909: 150; Nordlinger 1848: 237, 1856: 20; Novak, V., Hrozinka, & Stary 1976: 70; Nunberg 1928a: 141, 1929c: 123, 1930, 1948: 1–30, 1954: 79; Nusslin 1911a: 2; Ohnesorge 1955: 279; Pfeffer 1932b: 25, 1941b: 16, 1955a: 236, 1989a: pl. 10; Plaza & Gil 1982: 256; Portevin 1935: 336; Postner 1974: 446; Quaschik 1953: 35; Ratzeburg 1837: 156, 1839: 169, 190; Redtenbacher 1849a: 357, 1849b: 26, 1858: 834, 1874: 378; Reitter 1894a: 85, 1897b: 244, 1913a: 103, 1916: 302; Rey 1892b: 30; Rhumbler 1922: 311, 1927: 325; Rupertsberger 1879: 231, 1880: 231; Schedl 1934f: 1645, 1952f: 87, 1955e: 262, 1959h: 100, 1980a: 26, 1981b: 86; Schimitschek 1937c: 58, 1955c: 91; Schlechtendal & Wunsche 1879: 125; Sedlacek 1912: 308; Seidlitz 1872: 396, 1891a: 566, 1891b: 612; Spessivtsev 1913a: 77, 1931: 75–76; Stark 1952: 421; Stierlin 1898: 444; Stresemann et al. 1989: 353; Taschenberg 1880: 220, 227; Wachtl 1895: 8; Weber, L. 1912: 30. (ms) Chararas 1959d, 1971a: 853; Eggers 1912e; Escherich 1932b; Fankhauser 1885: 185; Gotz 1877; Lekander 1959a: 83; Merino-Rodriguez 1966: 47; Reh 1900a: 94; Ritter 1929: 555; Schimitschek 1955b: 102; Schwappach 1924: 57; Sedlacek 1902a: 126, 1913: 455, 1936: 200; Sinreich 1962; Vorontzov 1968; Weber, L. 1912: 30.
- elegans Swaine*** 1916b: 182. Holotype ♀; Hood River, Oregon [USA]; CNCI, Ottawa.
Distribution: North America (British Columbia in Canada/California, Idaho, Oregon, Washington in USA).
Hosts: *Abies concolor*, *A. grandis*, *A. magnifica*, rare in other conifers, restricted to *Pseudotsuga menziesii* in N Idaho.
Notes: (1) Swaine (1916b: 182) clearly described the female and on p. 183 cites the type. For this reason, Bright's (1967b: 677) designation of a lectotype for this species was not necessary.
References: (ay) Kirtibutr & Schent 1977. (cn) Chamberlin 1924; Doane et al. 1936; Keen 1938: 32; Lindgren 1980a: 67; Ruppel 1967: 73; Swaine 1918a: 123–124. (cc) Ashraf 1969; Ashraf & Berryman 1969: 14; Berryman 1968a: 66, 1973: 1483; DeLeon 1934a; Hertert, Miller, & Partridge 1975; Keen 1938: 32; Kirtibutr 1974; Kirtibutr & Schenk 1977. (hb) Bright & Stark 1973: 81; Chamberlin 1939: 434, 1958: 180; Doane et al. 1936; Keen 1938: 32; Kirtibutr 1974; Lindgren 1980a: 67; Swaine 1918a: 123–124; Wood, S. L. 1982b: 661. (ds) Bedard 1938a: 32; Bright 1976d: 81; Bright & Stark 1973: 81; Chamberlin 1925, 1939: 434, 1958: 180; Evans, D. 1983: 34; Furniss, R. L. & Carolin 1977: 400; Hertert, Miller, & Partridge 1975; Hopping, R. 1922; Keen 1929: 40, 1938: 32; Kirtibutr 1977: 381; Kleime 1934a: 152; Laursen 1979; Leng 1920: 341; Patterson &

Hatch 1945: 153; Ruppel 1967: 73; Wood, S. L. 1972a: 418, 1982b: 661. **(tx)** Bright 1967b: 677, 1976d: 148; Chamberlin 1939: 434, 1958: 180; Evans, D. 1983: 34; Hoebeke 1978; Hopping 1963b: 65; Keen 1929: 40; Pardy 1977; de Ruelle 1970: 107; Swaine 1916b: 182–183, 1918a: 123–124; Wood, S. L. 1972a: 418, 1982b: 661.

***lasiocarpa* (Swaine)** 1916b: 183 (*Orthotomicus*). Holotype ♀; Rogers' Pass, British Columbia [Canada]; CNCI, Ottawa.

Distribution: North America (Alberta, British Columbia in Canada/ Idaho, Montana, Oregon, Utah, Washington in USA).

Hosts: *Abies amabilis*, *A. lasiocarpa*, *Picea engelmannii*, *Pseudotsuga menziesii*.

Notes: (1) Swaine (1916b: 183) clearly described the female and on p. 184 cites the type; consequently, Bright's (1976b: 676) designation of a lectotype was not needed. (3) Wood 1951b: 32 (treated in *Orthotomicides*).

References: **(cn)** Doane et al. 1936; Swaine 1918a: 121–122. **(hb)** Chamberlin 1939: 439, 1958: 184–185; Doane et al. 1936; Swaine 1918a: 121–122; Wood, S. L. 1982b: 660. **(ds)** Bright 1967b: 676, 1976d: 144; Chamberlin 1925, 1939: 439, 1958: 184–185; Furniss, R. L. & Carolin 1977: 400; Gast et al. 1989: 385; Hopping, R. 1922; Keen 1929: 39; Leng 1920: 341; Still, Tidsbury, & Melvin 1974: 14; Wood, S. L. 1948: 66, 1951a: 128, 1972a: 417, 1982b: 660. **(tx)** Bright 1967b: 676, 1976d: 144; Chamberlin 1939: 439, 1958: 184–185; Hoebeke 1978; Hopping, G. 1963b: 63; Keen 1929: 39; de Ruelle 1970: 105; Swaine 1916b: 183, 1918a: 121–123; Wood, S. L. 1951a: 128, 1951b: 32, 1972a: 417, 1975a: 21, 1982b: 660.

***minutus* (Swaine)** 1912a: 352 (*Dryocoetes*). Holotype ♀; Colorado. Lot 302, sub. 94, 130 [USA]; Cornell University Collection, Ithaca, New York. Figures: Kusch 1967: 9.

Distribution: North America (Alberta, British Columbia in Canada/ Arizona, Colorado, Montana, New Mexico, Oregon, Utah, Washington, Wyoming in USA).

Hosts: *Abies lasiocarpa*.

Notes: (1) Although Swaine (1912: 353) clearly designated a type, Bright (1967: 674) cited this specimen as a lectotype.

References: **(cn)** Chamberlin 1924; Ciesla, Dewey, & Tunnock 1971: 21; Doane et al. 1936; Smith, G. J. & Melvin 1974b; Swaine 1918a: 123–124; Tripp & Blauel 1969: 104; Tripp, Robins, & Blauel 1970: 90; Woodring & Moser 1970. **(cc)** Chamberlin 1918a: 33; Hirschmann & Wisniewski 1982, 1983; Hurlbutt 1967. **(hb)** Bright 1976d: 145; Bright & Stark 1973: 81; Chamberlin 1939: 434, 1958: 180–181; Doane et al. 1936; Swaine 1918a: 123–124. **(ds)** Bright 1976d: 145; Bright & Stark 1973: 81; Chamberlin 1918a: 33, 1925, 1939: 434, 1958: 180–181; Elias 1985: 39; Furniss, R. L.

& Carolin 1977: 400; Gast et al. 1989: 385; Hopping, R. 1922; Keen 1929: 40; Kleine 1913b: 136, 1934a: 153; Kusch 1967; Leng 1920: 341; Smith, G. J. & Melvin 1974b; Thatcher 1935: 261; Wood, S. L. 1948: 67, 1951a: 128, 1957c: 401, 1972a: 418, 1982b: 659. **(tx)** Bright 1967b: 674, 1976d: 145; Chamberlin 1939: 434, 1958; Hopping, G. 1963b: 63; Keen 1929: 40; Kusch 1967: 9; de Ruelle 1970: 100; Swaine 1912a: 352, 1918b: 123–124; Wood, S. L. 1951a: 128, 1957c: 400–401, 1972a: 418, 1982b: 659.

jasperi Swaine 1916b: 181. Holotype ♀; Jasper Park, Alberta, Canada; CNCI, Ottawa. Synonymy: Wood 1957c: 401.

Notes: (1) Swaine (1916b: 181) clearly described the female and on p. 182 cites the type; consequently, Bright's (1967b: 677) designation of a lectotype was unnecessary.

References: **(cn)** Chamberlin 1924; Doane et al. 1936; Swaine 1918a: 123–124. **(hb)** Chamberlin 1939: 435; Doane et al. 1936; Swaine 1918a: 123–124. **(ds)** Chamberlin 1917, 1925, 1939: 435; Hopping, R. 1922; Keen 1929: 40; Kleine 1934a: 153; Leng 1920: 341. **(tx)** Bright 1967b: 677; Chamberlin 1939: 435; Hoebeke 1978; Keen 1929: 40; de Ruelle 1970: 107; Swaine 1916b: 181–182, 1918a: 123–124; Wood, S. L. 1957c: 400.

***mystacinus* Wood** 1975a: 29. Holotype ♀; Mount Rainier National Park, Washington [USA]; CNCI, Ottawa.

Distribution: North America (Mount Rainier in Washington in USA).

Hosts: *Abies amabilis*.

References: **(ds)** Furniss, R. L. & Carolin 1977: 400; Wood, S. L. 1982b: 660. **(tx)** McNamara 1984: 753; Wood, S. L. 1975a: 29, 1982b: 660.

***ornatus* (Swaine)** 1916b: 185 (*Orthotomicus*). Holotype ♀; Williams, Arizona [USA]; CNCI, Ottawa.

Figures: Bright 1976d: 146.

Distribution: North America (British Columbia in Canada/ Arizona, California, Colorado, Idaho, Montana, New Mexico, Oregon, South Dakota, Utah in USA).

Hosts: *Pinus ponderosa*, less common in *P. attenuata*, *P. contorta*, *P. edulis*, *P. jeffreyi*, *Picea pungens*.

Notes: (1) Wood 1966: 27 (to *Pityokteines*). Bright (1967b: 676) cites this type as a lectotype; however, Swaine (1916b: 186) clearly cites a type.

References: **(cn)** Blackman 1931c; Doane et al. 1936; Keen 1929: 57, 1938: 118, 1952c: 153; Lindgren 1980a: 67; Schuder 1969: 78; Swaine 1918a: 121–122. **(cc)** Blackman 1931c; Keen 1938: 118; Massey 1961: 358; Stephen & Dahlsten 1976b: 292. **(hb)** Blackman 1931c; Bright & Stark 1973: 81; Chamberlin 1939: 438, 1958: 183; Doane et al. 1936; Keen 1929: 57, 1938: 118, 1952c: 153;

Lindgren 1980a: 67; Swaine 1918a: 121, 133; Wood, S. L. 1982b: 657. **(ds)** Atkinson & Equihua 1988: 94; Bright 1967b: 676, 1976d: 145; Bright & Stark 1973: 81; Chamberlin 1917: 328, 1925, 1939: 438, 1958: 183; Evans, D. 1983: 145; Gast et al. 1989: 385; Hopping, R. 1922, 1924: 125–128; Keen 1929: 39, 57, 1938: 118, 1949a: 93, 1952c: 153; Lange 1937: 173; Leng 1920: 341; Miller, R. F., Morgan, & Hicock 1985: 501; Nunberg 1961b: 611; Patterson & Hatch 1945: 153; Schedl 1962k: 1097; Schuder 1969: 78; Wood, S. L. 1972a: 418; 1982b: 657. **(tx)** Bright 1967b: 676, 1976d: 145–146; Chamberlin 1939: 438, 1958: 183; Evans, D. 1983: 34; Hoebeke 1978; Keen 1929: 39; de Ruette 1970: 105; Swaine 1916b: 185, 1918a: 121–122; Wood, S. L. 1966b: 27, 1972a: 418, 1982b: 657.

sparsus (LeConte) 1868: 160 (*Xyleborus*). Holotype ♀; Point Keweenaw, Lake Superior, Michigan [USA]; MCZ, Cambridge.

Figures: Kusch 1967: 9, Rose & Lindquist 1977: 118.

Distribution: North America (Alberta, New Brunswick, Newfoundland, Nova Scotia, Ontario, Quebec, Saskatchewan in Canada/ Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New York, Pennsylvania, West Virginia, Wisconsin in USA).

Hosts: *Abies balsamea*.

References: **(ay)** Kirtibutr & Schenk 1977: 381; Krywienzyk 1966; Thomas, J. B. 1957: 4, 1967. **(bv)** Hosking & Knight 1975, 1976. **(cn)** Baker, W. L. 1972: 263; Basham 1959: 295, 1986; Belyea 1948: 1, 1952a: 326, 1952b: 734–738; Blackman 1919: 148, 1950; Browne 1968b: 563; Carroll & Parrott 1963; Chamberlin 1924; Craighead 1924: 42; Currie 1905: 80; Doane et al. 1936; Drooz 1985: 357; Felt 1906: 752, 1924: 268, 1926: 248, 268, 1930a: 247, 249, 268, 1942: 6; Felt & Bromley 1943: 326–327; Felt & Rankin 1932: 235, 406; Graham 1922b; Harrington 1881: 31; Hewitt 1920: 1–23; Hopkins 1899c: 446; Howse, Gross, & Rose 1981: 55; Lindquist, O. H. & Syme 1981: 88; Magasi 1988: 89; Miller-Weeks 1985: 19; Moody 1988: 61; Packard 1890: 720; Pardy 1972: 7; Pettit 1927: 12, 1928: 348; Pierson 1923: 26, 1927: 67; Rose & Lindquist 1977: 118–119; Schedl 1928: 110; Sippell, Rose, & Gross 1978: 56; Swaine 1918a: 123, 1919: 46, 1922: 33, 1928: 1–20; Swaine et al. 1924: 18, pl. 11, 22; Syme & Nystrom 1988: 84; Wilson, L. F. 1977: 72. **(cc)** Basham 1959: 295, 1980; Belyea 1948, 1952a: 326, 1952b, 1960; Bushing 1965: 464; Felt 1906: 752; Graham 1920, 1921, 1922b, 1923: 22–40, 1924: 33; Hosking & Knight 1976; Lindquist, E. E. 1969c; Marsh 1979: 295; Morley 1939: 244; Swaine 1921: 345; Tomalak, Welch, & Galloway 1989b; Wall 1988; Warren 1987. **(hb)** Anderson, R. F. 1960: 241; Baker, W. L. 1972: 263; Belyea

1950: 2; Blackman 1950; Bright 1976d: 148; Browne 1968b: 563; Chamberlin 1939: 433; Chittenden 1890; Doane et al. 1936; Drooz 1985: 357; Eidmann 1962: 161; Felt 1906: 752, 1926: 248, 268, 1930a: 247, 249, 268; Felt & Rankin 1932: 235, 406; Gobeil 1935; Harrington 1902a: 116; Hopkins 1893a: 130, 1893b: 208, 1899c: 446; Hosking 1976b; Hosking & Knight 1976; Kaston & Riggs 1937: 98; Morley 1939: 244; Morstatt 1924: 8; Mott 1954: 1; Pierce 1907: 290; Pierson 1923: 26, 1927: 67; Prebble 1933: 145–146; Rose & Lindquist 1977: 118–119; Schwarz 1888a: 80; Swaine 1918a: 123; Swaine et al. 1924: pl. 11, 22; Wilson, L. F. 1977: 72. **(ds)** Anderson, R. F. 1960: 241; Anonymous 1926c: 519; Austara et al. 1983; Beaulne 1956; Blackman 1950; Bright 1971a: 126, 1976d: 148; Britton 1920a; Brown 1934; Browne 1968b: 563; Chamberlin 1925, 1939: 433; Chittenden 1890; Dodge 1938: 52–53; Drooz 1985: 357; Dunn 1936: 9; Eidmann 1935; Felt 1926: 247, 268, 1930a: 247, 249, 268; Felt & Rankin 1932: 235, 406; Gemminger & Harold 1872: 2686; Hagedorn 1910a: 59; Hamilton 1894: 406, 1895a: 346, 378; Hatch 1924; Henshaw 1882: 269, 1885: 147; Hopkins 1893a: 130; Houghton 1905; Hubbard & Schwarz 1878b: 624; Kleine 1913b: 131, 1914b: 410, 1934a: 153; Kusch 1967; Leng 1920: 341; Leonard 1928: 519; Linder 1953: 71; Lindquist, O. H. & Syme 1981: 88; Macfillvray, A. & Houghton 1902; Martineau & Beique 1955: 34; Morgan, A. V. & Morgan 1980: 1110; Schwarz 1886: 41, 1888a: 80; Schwert et al. 1985; Slosson 1906: 325; Smith, J. B. 1900: 362, 1910: 401; Still, Tidsbury, & Melvin 1974b; Swaine 1909: 133, 1918b: 860–861; Syme & Nystrom 1988: 84; Wood, S. L. 1982b: 661. **(tx)** Benoit 1985: 203; Bright 1976d: 148, 203, 212; Chamberlin 1939: 433; Dodge 1938: 52–53; Eichhoff 1896: 609; Hagedorn 1910a: 106; Hamilton 1891: 130, 132; Kusch 1967: 9; LeConte 1868: 160, 1876: 360, 1878b: 624; Lindquist, O. H. & Syme 1981: 88; Pardy 1974, 1977; Rose & Lindquist 1977: 118–119; Schwarz 1886: 41; Swaine 1909: 133, 1915a: 9, 1916b: 181–185, 1918a: 123–124; Syme & Nystrom 1988: 84; Thomas, J. B. 1957: 4, 1967; Thomas, J. B. & Krywienzyk 1966; Titus, Meikle, & Harrison 1985: 105; Wood, S. L. 1982b: 661. **(ms)** Eckstein 1900c.

balsameus LeConte 1878b: 625 (*Tomicus*). Lectotype ♂; central New York [USA]; MCZ, Cambridge, designated by Wood 1982b: 662. Synonymy: Swaine 1918a: 123.

References: **(cn)** Currie 1905: 81; Hewitt 1914: 501–518, 1916: 851–876; Hopkins 1904a: 25; Swaine 1910d: 42, 1913: 41–43, 1919: 230; Walker 1912: 60. **(cc)** Felt 1906: 375–379. **(hb)** Felt 1901: 519–522, 1902: 65, 1906: 375–379; Hopkins 1904a: 25; Swaine 1911b: 81. **(ds)** Currie 1905; Hagedorn 1910d: 49; Henshaw 1882: 269; Hubbard & Schwarz 1878b: 625;

Kleine 1913b: 131, 1914b: 407, 1934a: 152; Leng 1920: 341; Swaine 1909: 119, 1911b: 81. (tx) Eichhoff 1896: 609–610; Hagedorn 1910a: 104; LeConte 1878b: 625; Swaine 1909: 119–120, 1915a: 10, 1918a: 123.

spinidens (Reitter) 1894a: 85 (*Ips*). Holotype ♀?, Caucasus; NHMB, Budapest.

Figures: Balachowsky 1949a: 256, 259 (adult), Grune 1979: 136, Novak, Hrozinka, & Sary 1976: 71, Plaza & Gil 1982: 250, 256.

Distribution: Asia (Korea/ Turkey), Europe (Austria/ Bulgaria/ Corsica/ Czechoslovakia/ France/ Germany/ Greece/ Hungary/ Italy/ Poland/ Romania/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Abies alba*, *A. borisii-regis*, *A. cephalonica*, *A. pectinata*, rare in *Larix europaea*.

References: (ay) Chararas, Chipoulet, & Courtois 1979; Escherich 1923b: 486; Fuchs 1911a. (bv) Chararas 1966b, 1968b: 1552, 1982; Chararas & Stephanopoulos 1975a; Grune 1979: 137; Harring 1978; Hierholzer 1950, 1951b; Inscoc 1982; Jacobson 1972; Klassen, Ridgway, & Inscoc 1982; Krol & Zabecki 1976; Merker 1965a. (cn) Androic 1966: 49; Braum 1941b: 373–387; Capek et al. 1957; Eckstein 1926: 579; Egger 1949; Escherich 1923b: 486; Fice 1961: 173–204; Gradojevic 1940; Grandi 1951; Hasek 1955; Hierholzer 1949, 1951b, 1954a: 329; Kailidis 1964a: 41–54, 1966a: 81–85; Kailidis & Georgevits 1972; Kailidis & Markalas 1988; Kholodkovskii 1912: 318; Kovacevic 1957: 67; Krol & Zabecki 1976; Maksynov 1950: 502, 506; Marcu 1926c: 66, 1930: 327–336; Martin & Cobos 1986; Merker 1954b: 210, 1955: 265, 1956b: 324, 1956d: 184, 1969; Muller 1912: 186; Mumford 1960: 37; Novak, V., Hrozinka, & Sary 1976: 71; Pelekassis 1962; Pierce, W. D. 1917: 79; Regula 1955: 131; Rhumbler 1922: 311, 1927: 325; Schimitschek 1932a: 23, 1935b: 149, 1937b: 9, 1937c: 58, 1938c: 2112, 1939d: 2112, 1944: 220, 1949b: 180, 1950: 29, 1952c: 59, 1955a: 86, 89, 1955c: 91, 1956: 340, 1961a: 154, 1964e; Schneider-Orelli & Kuhn 1948: 533; Schwerdtfeger 1944: 182; Spaic 1955: 454; Stockl 1941: 183; Thalenhorst 1950: 90; Vajda 1949: 273; Wachtl 1901: 381; Weber, H. 1926: 579; Zivojinovic 1950: 299–310; Zwolfer 1949: 400. (ce) Balazy 1962, 1965a; Balazy & Michalski 1962b, 1964b; Balazy et al. 1977; Capek 1957; Chararas 1958b, 1959d; Gauss 1954a: 423; Hierholzer 1950, 1954a: 329, 1954b: 355; Hirschmann & Wisniewski 1982, 1983; Karpinski 1932a: 95; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1983; Kleine 1908c: 214; Kraemer 1949: 60, 1950b: 354; Krol & Zabecki 1976; Merker 1954b: 210, 1956a: 179, 1965a; Michalski & Ratajczak 1989; Nusslin 1927: 324; Obertel 1957: 186; Pfeffer 1923a: 332, 1955b: 84, 1960: 345; Ruhl 1956b: 4; Schimitschek 1941a: 305, 1950: 29, 1955a: 86, 89; Schwerdtfeger 1944a: 82;

Stolina 1959: 217; Wisniewski 1979b. (hb) Bargmann 1898b, 1899a, 1899c, 1900, 1904, 1906; Braum 1941c; Chararas 1962c: 286, 1965b; Charvat 1950; Coudroy 1981a; Eckstein 1926: 579; Escherich 1923b: 486; Formanek 1899; Grandi 1951; Gyorf 1957; Hierholzer 1949; Kamp 1951c: 158; Karpinski & Strawinski 1948: 157; Kholodkovskii 1912: 318; Knotek 1899a: 19, 1899b: 1, 1901: 565; Kraemer 1949: 49–51, 1950b: 257, 354; Lengerken 1939: 68, 1954: 87; Maksynov 1950: 502; Merker 1960: 3, 1965: 1562–1570; Novak, V., Hrozinka, & Sary 1976: 71; Nusslin 1898: 282, 1927: 324; Orest 1926a: 68; Pfeffer 1941b: 16, 1989a: 73; Postner 1974: 448; Rhumbler 1922: 311, 1927: 325; Schimitschek 1936: 565–602, 1944: 220, 1955a: 86, 89; Schwerdtfeger 1944a: 182, 1981: 193; Stark 1952: 422; Wachtl 1901: 381; Weber, H. 1926: 579. (ds) Androic 1966: 48; Bargmann 1898a; Capek et al. 1957; Charvat 1950; Cho 1957; Choo 1983: 88; Choo & Woo 1985: 165; Endrodi 1958b; Escherich 1923b: 486, 1932b; Georgijevic 1966: 3–48; Grune 1979: 137; Heyden, Reitter, & Weise 1906: 712; Heyrovsky 1927; Horion 1951; Jazentkovsky 1912: 291; Kailidis 1964a, 1966a: 55, 1985; Kailidis & Georgevits 1972; Kailidis & Markalas 1988; Kamp 1951c; Karpinski 1925: 216, 1926: 83, 1932a: 95, 1948b: 231; Karpinski & Strawinski 1948: 157; Keler 1925b: 275; Kleine 1912a: 268, 1913a: 35, 1913b: 128; Knotek 1899b: 1, 1901: 565; Ko 1969: 279; Kovacevic 1957: 67; Kozikowsky 1921: 181; Kozikowsky & Kuntze 1925: 21; Kudela 1946a: 339; Kurir 1947c: 18; Lucht 1987: 279; Malazgirt 1966: 64; Marcu 1926c: 66; Merker 1956b: 324, 1960; Michalski 1957: 166; Mumford 1960: 37; Murayama 1929b: 2, 1929d: 3, 1929e: 23, 1930b: 16, 1937b: 375; Negru 1968a: 457; Nunberg 1928b: 88, 115, 1954: 79, 1964a: 236; Nusslin 1898: 282; Orest 1926c: 67–68; Pelekassis 1962; Pfeffer 1924b: 472, 1935: 158, 1960: 345, 1989a: 73; Pierce, W. D. 1917: 79; Pittioni 1943: 175; Pjatnitskii 1930a: 165; Plaza & Gil 1982: 250; Postner 1974: 448; Reitter 1894a: 85, 1897b: 245, 1916: 302; Rouhal 1941: 274; Sainte-Claire 1906: 267, 1914: 473; Sainte-Claire & Mequignon 1938: 449; Schaufuss 1915: 1246; Schedl 1967c: 72, 1980a: 26, 1981b: 88; Schilsky 1909: 189; Schwerdtfeger 1981: 193; Stark 1927b: 90, 1952: 422; Tredl 1907: 16; Wichmann 1927a: 76. (tx) Balachowsky 1949a: 258; Bargmann 1898b; Charvat 1950; Choo 1983: 88; Endrodi 1957a: 307, 1957b, 1966: 292; Escherich 1923b: 486; Fleischer 1927; Formanek 1907: 44; Fuchs 1911a; Grune 1979: 136–137; Karpinski & Strawinski 1948: 157; Lucht 1987: 279; Murayama 1929: 20–30, 1930b: 16, 1937b: 375; Novak, V., Hrozinka, & Sary 1976: 71; Nunberg 1948: 1–30, 1954: 79; Pfeffer 1932b: 25, 1941b: 16, 1955a: 238, 1989a: pl. 10; Plaza & Gil 1982: 250, 256; Postner 1974: 448; Quaschik 1953: 35; Reitter 1894a: 85, 1897b: 245, 1913a: 103, 1916: 302; Rhumbler 1922: 311,

1927: 325; Schedl 1934f: 1645, 1952f: 87, 1980a: 26, 1981b: 88; Schimitschek 1937c: 58, 1955c: 91; Stark 1952: 422; Weber, L. 1912: 30. (**ms**) Chararas 1959d, 1971a: 853; Eggers 1910a; Escherich 1932b; Sedlaczek 1913: 455; Weber, L. 1912: 30. *curvidens heterodon* Wachtl 1895: 15 (*Tomicus*).

Syntypes ♂ ♀; Niederösterreich; not located. Synonymy: Reitter 1913a: 103, Balachowsky 1949a: 258.

References: (**hb**) Barbey 1901: 2, 26, 94; Bargmann 1898b, 1904; Formanek 1899; Lauffer 1931: 229. (**ds**) Kleine 1913b: 128; Lauffer 1931: 229; Pfeffer 1924b: 472; Reitter 1897b: 243; Schilsky 1909: 189. (**tx**) Balachowsky 1949a: 258; Barbey 1901: 2; Bargmann 1898b; Pfeffer 1932b: 25; Reitter 1897b: 243; Schedl 1934f: 1645; Wachtl 1895: 15.

vorontzowi (Jacobson) 1895: 521 (*Tomicus*). Syn-types, sex?; Polonia Rossica; not located.

Figures: Grune 1979: 138, Pfeffer 1989a: pl. 10, Plaza & Gill 1982: 250, 256.

Distribution: Asia (Turkey), Europe (Austria/ Bulgaria/ Corsica/ Czechoslovakia/ France/ Germany/ Greece/ Hungary/ Italy/ Poland/ Romania/ Spain/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Abies bornmulleriana*, *A. cephalonica*, *A. pectinata*, *Pinus halepensis*.

References: (**ay**) Escherich 1923b: 486, 610; Fuchs 1911a; Nusslin 1911a: 2. (**bv**) Chararas 1966b; Chararas & Stephanopoulos 1975a; Grune 1979: 139; Harring 1978; Hierholzer 1950, 1951b; Inscoc 1982; Jacobson 1972; Klassen, Ridgway, & Inscoc 1982; Krol & Zabecki 1976; Prell 1931: 366. (**cn**) Capek et al. 1957: 277–284; Chararas 1978; Chorbadzhievo 1929; Eckstein 1926: 579; Escherich 1923b: 486, 610; Gabler 1955; Grandi 1951; Hierholzer 1949, 1951b, 1954a: 329; Kailidis 1964a: 41–54, 1966a: 81–85; Kailidis & Georgevits 1972; Kailidis & Markalas 1988; Kamp 1950; Kovacevic 1957: 67; Krol & Zabecki 1976; Knteev 1965, 1967; Maksimovic & Milanovic 1964, 1966; Maksymov 1950: 502; Martin & Cobos 1986; Merker 1954b: 209; Mokrzecki 1928: 273; Muller 1912: 186; Nosek 1951: 106, 1952b: 96; Nusslin 1913: 206, 269; Pierce, W. D. 1917: 79; Pjatnitskii 1932: 295–302; Regula 1955: 133; Rhumbler 1922: 311, 1927: 325; Schimitschek 1932a: 23, 1937b: 9, 1937c: 59, 1938c: 2112, 1939d: 2112, 1944: 220, 1949c: 15, 1950: 58, 1952c: 60, 1955a: 84, 86, 1955c: 91, 1956: 342; Schwerdtfeger 1944a: 182, 1957a: 188; Sedlaczek 1921: 335, 1933: 307; Slander 1948: 10; Thalenhorst 1950: 90; Tomic 1957: 207–210; Vorontzov 1968; Wachtl 1901: 381; Wardle 1929: 325; Weber, H. 1926: 579; Wohlfmann 1936: 41; Zwoller 1949: 400. (**cc**) Apfelbeck 1916b: 429–439; Balazy 1962; Balazy & Michalski 1962b, 1964b; Boncek 1958; Capek 1957; Chararas 1958b; Gauss 1954a: 423; Graham 1969: 880; Hierholzer 1950, 1954a: 329,

1954b: 385; Hirschmann & Wisniewski 1982, 1983; Karpinski 1932a: 95; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980b, 1983; Kleine 1908c: 214; Kraemer 1949: 60, 1950b: 355; Krol & Zabecki 1976; Majewski & Wisniewski 1978a: 9; Merker 1954b: 209; Michalski & Ratajczak 1989; Nosek 1951: 106, 1952b: 96; Nuorteva 1957b: 52, 1959d: 193; Nusslin 1927: 324; Obertel 1957: 186; Pfeffer 1955b: 85, 1960: 345; Popovic 1931: 57; Ruhm 1956b: 4; Scheidter 1936: 236; Schimitschek 1950: 58, 1955: 84, 86; Schwerdtfeger 1944a: 182, 1957a: 188; Sedlaczek 1933: 307, 1935a: 163; Thompson, W. R. & Simmonds 1964: 25, 1965: 69; Tudor 1969: 32; Wisniewski 1979b, 1980. (**hb**) Apfelbeck 1916b, 1917; Bargmann 1898b, 1899a, 1899c, 1900, 1904, 1906; Braun 1941c; Chararas 1962c: 289; Charvat 1950; Chorbadzhievo 1929; Coudroy 1981a; Eckstein 1926: 579; Escherich 1923b: 486, 610; Formanek 1899; Gabler 1955; Grandi 1951; Györfi 1957; Hierholzer 1949; Kamp 1951c; Karpinski & Strawinski 1948: 157; Knotek 1899a: 19, 1899b: 1, 1901: 565; Kraemer 1950b: 355; Lengerken 1939: 36, 1954: 87; Maksymov 1950: 502, 508; Masutti 1964; Nunberg 1929c: 123; Nusslin 1898: 282, 1913: 206, 269, 1927: 324; Pfeffer 1941b: 16, 1989a: 73; Postner 1974: 448; Prell 1931: 366; Reh 1900a: 94; Rhumbler 1922: 311, 1927: 325; Scheidter 1936: 236; Schimitschek 1944: 220, 1955a: 84, 86; Schwerdtfeger 1944a: 182, 1957a: 188, 1981: 193; Sedlaczek 1921: 335, 1935a: 163; Spessivtsev 1913a: 78; Stark 1952: 423; Szajeci 1955: 242; Tschorbadjiev 1929: 173; Wachtl 1901: 381; Weber, H. 1926: 579. (**ds**) Barthe 1896; Borchert 1951; Buresh & Lazarov 1956; Capek et al. 1957; Charvat 1950; Chorbadzhievo 1929; Csiki 1914; Dzhanbazishvili 1961: 751–757, 1962; Endrodi 1957a: 307, 1958b; Escherich 1923b: 486, 610, 1932b; Grune 1979: 139; Hennig 1954: 257; Heyden, Reitter, & Weise 1906: 712; Horion 1951; Jazentkovsky 1939: 77; Jacobson 1895: 521; Jazentkovsky 1912: 291; Kailidis 1964a, 1966a, 1966b: 55, 1985; Kailidis & Georgevits 1972; Kailidis & Markalas 1988; Kamp 1951c; Karpinski 1925: 216, 1926: 83, 1931: 20, 1932a: 95, 1948b: 231; Karpinski & Strawinski 1948: 157; Keler 1925b: 275; Kleine 1912a: 263, 268, 1913a: 35, 1913b: 128; Knotek 1899b: 1, 1901: 565; Kono 1951: 159; Kovacevic 1957: 67; Kozikowsky 1921: 181; Kraemer 1948: 133, 1949: 49–51, 1950: 356; Kudela 1946a: 339; Kunir 1947c: 18; Langhoffer 1915c: 158; Lucht 1987: 279; Michalski 1957: 166; Miller 1958: 33–143, 145–229; Mokrzecki 1928: 273; Negru 1966b: 403; Novak, P. 1964; Nunberg 1928b: 88, 115, 1954: 79; Nusslin 1898: 282; Pfeffer 1924b: 472, 1935: 158, 1947d: 129, 1950b: 75, 1960: 345, 1989a: 73; Pierce, W. D. 1917: 79; Pittioni 1943: 175; Plaza & Gil 1982: 250; Postner 1974: 448; Reitter 1897b: 244, 1916:

302; Roubal 1941: 274; Ruskov 1928c: 62; Sainte-Claire 1914: 474; Sainte-Claire & Mequignon 1938: 449; Schaufuss 1915: 1246; Schedl 1961b: 184, 1967c: 72, 1980a: 26, 1981b: 88; Schilsky 1909: 188; Schimitschek 1927: 159, 1938c: 2112; Schwerdtfeger 1981: 193; Stark 1952: 433; Szujecki 1955: 242; Tredl 1907: 16; Tschorbadjev 1929: 173; Wanka 1920: 202–203; Wichmann 1927a: 76; Zivojinovic 1950: 299–310. **(tx)** Balachowsky 1949a: 259; Bargmann 1897, 1898b, 1899: 36; Charvat 1950; Eggers 1923: 218; Endrodi 1957a, 1957b; Escherich 1923b: 486, 610; Fleischer 1927; Formanek 1907: 44; Fuchs 1911a; Gabler 1955; Grune 1979: 138–139; Hopping 1963b: 63; Jacobson 1895: 521; Karpinski & Strawinski 1948: 157; Koch 1932: 100; Lucht 1987: 279; Michalski 1969b: 570; Negru 1966b: 403; Nunberg 1929c: 123, 1948: 1–30, 1954: 79; Nusslin 1911a: 2; Pfeffer 1932b: 251, 1941b: 16, 1955a: 236, 1989a: pl. 10; Plaza & Gil 1982: 250, 256; Portevin 1935: 336; Quaschik 1953: 35; Reitter 1897b: 244, 1913a: 103, 1916: 302; Rhumbler 1922: 311, 1927: 325; Schedl 1934f: 1645, 1952f: 87, 1980a: 26, 1981b: 88; Schimitschek 1937c: 59, 1955c: 91; Spessivtsev 1913a: 78, 1931: 76; Stark 1952: 423; Weber, L. 1912: 30. **(ms)** Chararas 1971a: 853; Eggers 1910a; Escherich 1932b; Reh 1900a: 94; Sedlacek 1913: 455; Vorontzov 1968; Weber, L. 1912: 30.

Genus *Orthotomicus* Ferrari

ORTHOTOMICUS FERRARI 1867a: 44. Type-species: *Bostrichus laricis* Fabricius, subsequent designation by Hopkins 1914: 126.

Neotomicus Fuchs 1911: 33. Type-species: *Bostrichus laricis* Fabricius, subsequent designation by Hopkins 1914: 125. Synonymy: Swaine 1918a: 121.

References: **(tx)** Balachowsky 1949a: 268; Endrodi 1957: 419; Fuchs 1911: 33; Spessivtsev 1931: 90; Swaine 1918a: 121.

Keys: Balachowsky 1949a: 268, Reitter 1913a: 108, Stark 1952: 407 for Europe, Yin, Huang, & Li 1984: 138 for China, Nobuchi 1974: 42 for Japan.

Notes: (1) Ferrari 1867a: 44 (Original spelling of *Onthotomicus*, lapsus calami, corrected in Ferrari 1869: 256).

References: **(ay)** Lanier 1965: 175; Nobuchi 1969a: 65; Nunberg 1926: 51–59. **(hb)** Wood, S. L. 1986a: 68. **(ds)** Tragardh 1930: 468–480; Trappen 1935: 143; Wood, S. L. 1986a: 68; Yin, Huang, & Li 1984: 136. **(tx)** Balachowsky 1949a: 268; Browne 1961c: 81–82; Chamberlin 1939: 435–439; Dodge 1938: 19; Eggers 1931c: 186, 1932: 33; Endrodi 1957: 419; Ferrari 1867a: 44, 1869: 256; Hopping 1963b: 61; Karaman 1972: 156–158; Kostin 1973: 269; Krivolutsкая 1956: 183; Nobuchi 1974: 42; Pfeffer 1989a: 77; Prell 1929: 90–91; Schedl 1958k: 145; Wood, S. L. 1951b: 32, 1982b: 662–664, 1986a: 68; Yin, Huang, & Li 1984: 136.

angulatus (Eichhoff) 1875: 200 (*Tomicus*). Syn-types, sex²; Japan; IRSNB, Brussels.

Figures: Nobuchi 1966d: pl. 6, 1974: pls. 1–2.

Distribution: Asia (Cambodia/ Fujian, Yunnan in China/ Japan/ Korea/ Rynkyu Islands/ Taiwan).

Hosts: *Tsuga sieboldii*, *Pinus densiflora*, *P. luchuensis*, *P. parviflora*, *P. thunbergiana*, *Cryptomeria japonica*, *Chamaecyparis obtusa*.

References: **(ay)** Sasakawa & Yoshiyasu 1953. **(cn)** Anonymous 1980g; Godha et al. 1964; Murayama 1954a: 8. **(cc)** Choo, Kaya, & Shea 1989; Ho, Kaya, & Shea 1989. **(ds)** Anonymous 1980g; Bain 1974: 16; Blandford 1894c; Browne 1984a: 151; Choo 1983: 99; Choo & Woo 1955: 165; Choo, Woo, & Nobuchi 1988a: 134; Choo, Woo, & Park 1983: 175; Hagedorn 1910d: 48; Kleine 1913b: 127, 1934a: 150; Krivolutsкая 1983; Murayama 1934d: 505, 1948: 2, 1949a: 13, 1950b: 1294, 1951c: 4, 1954a: 8, 1954b: 170, 1955: 99, 102; Nobuchi 1966d: 37, 1967: 24, 1974: 43; Nohira & Ogawa 1986; Pfeffer 1935: 159. **(tx)** Choo 1983: 88; Eggers 1941b: 222, 1944: 143; Eichhoff 1875: 200; Hagedorn 1910a: 103; Murayama 1934: 505–512, 1950b: 1294, 1954b: 170, 1955: 99, 102; Nobuchi 1966d: 37, pl. 6, 1969b: 37, 1974: 43–44, pl. 1, 2; Schedl 1934f: 1644; Sokanovskii 1954: 19, 1959b: 93, 94.

caelatus (Eichhoff) 1868a: 402 (*Tomicus*). Syn-types, sex²; Pennsylvania, Carolina [USA]; IRSNB, Brussels.

Figures: Bright 1976d: 146, 149, Dillon & Dillon 1961: 501, 513, Evans 1983: 34, Kusch 1967: 9.

Distribution: Africa (introduced into South Africa), North America (Alaska/ all provinces in Canada/ Alabama, Arkansas, California, Colorado, Connecticut, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Dakota, Texas, Utah, Vermont, Virginia, West Virginia, Wisconsin, Wyoming in USA).

Hosts: *Pinus* spp., *Picea* spp., *Larix* spp.

References: **(ay)** Hopkins 1894g; Thomas, J. B. 1957: 4, 1967. **(bv)** Atkinson, Foltz, & Connor 1988; Baker, Hostettler, & Furniss 1977: 293; Clemens 1916; Furniss, M. M. & Livingston 1979: 371; Inscow 1982; Phillips, Atkinson, & Foltz 1989: 385–398; Provancher 1877: 567; Roling & Kearby 1975b; Turnbow & Franklin 1980. **(cn)** Anonymous 1965i, 1968g, 1968k, 1969h; Becker 1959b, 1962, 1964a, 1964c; Becker, Abbott, & Rick 1956: 664; Beckwith 1972; Bess 1944: 14–16; Blackman 1950; Brown, R. M. & Winter 1951; Browne 1968b: 491; Chenier & Philogene 1989a; Clemens 1916; Craighead & Swaine 1924: 1–27; Doane et al. 1936; Felt 1901: 488–490, 1906: 354, 1926: 267, 248; Felt & Bromley 1942: 169–171; Furniss,

- M. M. 1981; Griffin 1966: 1047–1048; Hetrick 1942: 181–183; Hewitt 1914: 501–518; Hopkins 1899c: 341, 423, 446, 1902c: 12; Keen 1952c: 154; Kondo & Taylor 1985; Lindgren 1980a: 66; Lindquist, O. H. & Syme 1981: 78; Martin, J. L. 1964, 1965: 40–43; Morley 1939: 243–248; Packard 1890: 706; Pierson 1927: 80; Rodary 1959: 852; Ruppel 1967: 71; Schenk et al. 1957a: 840; Schooley & Pardy 1981; Smith, J. B. 1900: 363; Stein, J. D. & Kennedy 1972: 99; Swaine 1913: 89, 1918a: 121; Syme & Nystrom 1988: 75; Thomas, J. B. 1965a; Verrall 1941: 549–558; Wong, H. R. & Melvin 1973. **(cc)** Ashmead 1894; Ashraf & Berryman 1969: 13; Bedard 1933a; Blackman & Stage 1918; Burks 1979: 824; Bushing 1965: 462; DeLeon 1934a, 1934b; Deyrup & Gara 1978: 275; Felt 1906: 354; Frederick, Sloan, & Skowron 1976; Furniss, R. L. & Carolin 1977: 398; Galford 1969b; Griffin, H. D. 1966, 1968; Grissell 1979: 765; Grunwald 1986; Heqvist 1959: 181; Hopkins 1908a; Houser 1931: 657; Lindquist, E. E. 1969c; Lindquist, E. E. & Hunter 1965; Marsh 1979: 158; Matthews 1970; Morley 1939: 244; Powell, J. M., Wong, & Melvin 1972: 15; Reid 1957b: 6; Richerson, J. W. & Borden 1972a; Rodary 1959: 852; Schenk et al. 1957a: 840; Smerlis & Finnegan 1981; Thomas, J. B. 1955: 341; Thompson, W. R. 1943: 58; Thompson, W. R. & Simmonds 1964: 23, 1965: 113; Tomalak, Welch, & Galloway 1989b: 1; Werner & Holsten 1984; Woodring 1966c: 125. **(hb)** Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 263; Beal & Massey 1945: 146–147; Blackman 1919a, 1922b: 115–118, 1950; Blackman & Stage 1918; Blandford 1894b; Bright 1976d: 149; Bright & Stark 1973: 82; Browne 1968b: 491; Chamberlin 1939: 437, 1958: 182–183; Chittenden 1890, 1897b, 1899a; Clemens 1916; Deyrup & Atkinson 1987a: 65; Dillon & Dillon 1961: 814; Doane et al. 1936; Drake 1921; Drooz 1985: 358; Felt 1906: 354, 1926: 248, 267; Furniss, R. L. & Carolin 1977: 398; Galford 1969b; Hopkins 1894g, 1898b: 21, 1899c: 341, 423, 446; Keen 1952c: 154; Lindgren 1980a: 66; Morley 1939: 244; Ostmark 1968; Packard 1890: 706; Pierce 1907: 291; Pierson 1927: 80; Schwarz 1888a: 80, 1894a: 16; Stein, J. D. & Kennedy 1972: 99; Swaine 1911b: 81, 1912b: 142, 1918a: 121; Wolcott & Montgomery 1933: 167; Wong, H. R. & Melvin 1973; Wood, S. L. 1982b: 663. **(ds)** Amman 1969a; Anonymous 1926c: 519, 1938g, 1969h; Ashworth & Brophy 1972: 2984; Ashworth et al. 1981; Bain 1974: 16; Baker, Hostetler, & Furniss 1977: 293; Beal & Massey 1945: 146–147; Beaulne 1956; Beckwith 1972a; Bedard 1938a; Blackman 1922b: 115–118, 1950; Blandford 1894b; Blatchley & Leng 1916: 640; Bright 1971a: 126, 1976d: 149; Bright & Stark 1973; Britton 1920a; Brown, A. W. A. 1934; Brown, R. M. & Winter 1981; Brown, W. J. 1930: 246; Browne 1968b: 491; Chamberlin 1917: 328, 1925, 1939: 437, 1958: 182–183; Chittenden 1890, 1897b, 1899a; DeLeon 1934: 297–317; Deyrup 1981b: 6; Deyrup & Atkinson 1987: 65; Dodge 1938: 15, 51; Drake 1921: 201–205; Drooz 1985: 358; Eidmann 1935; Elias 1982a, 1982b, 1983, 1985: 39; Evans, D. 1983: 34; Evans, D., Lowe, & Hunt 1978; Fall 1906: 202; Felt 1926: 248, 267, 1930a: 248; Fitch 1858: 716; Furniss & Livingston 1979: 371; Furniss, R. L. & Carolin 1977: 398; Gast et al. 1989: 385; Gautreau & Melvin 1974: 14; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 50; Hamilton 1895: 346, 378; Hatch 1924; Henshaw 1885: 148; Hoffmann 1956: 91, 1966: 91; Hopkins 1893a: 139, 1893b: 212, 1894g: 280, 1899c: 258, 342, 446, 1902c: 12; Hopping, C. 1950a: 3; Houghton 1905; Hubbard & Schwarz 1878a: 666; Keen 1929: 39, 1952c: 154; Kirk 1969, 1970; Kleine 1913b: 127, 1914b: 385, 409, 1934a: 150, 152; Kusch 1967; Lanier et al. 1972: 1919; Leng 1920: 341; Leonard 1928: 520; Lindquist, O. H. & Syme 1981: 78; Miller, R. F. & Morgan 1982; Miller, R. F., Morgan, & Hicock 1985: 500; Morgan, Anne, Morgan, & Elias 1985: 1821; Morgan, A. V. & Morgan 1980: 1110; Ostmark 1968; Patterson & Hatch 1945: 153; Proctor 1946: 208; Provancher 1877: 567; Ruppel 1967: 71; Schedl 1978c: 38; Schwarz 1878d: 468, 1886: 45, 1888a: 80; Schwert et al. 1985; Slosson 1906: 325; Smith, J. B. 1900: 363, 1910: 402; Still, Tidsbury, & Melvin 1974a, 1974b; Susut & Melvin 1974; Swaine 1909: 120, 1911b: 81, 1913: 89; Syme & Nystrom 1988: 75; Thomas, J. B. 1955: 341; Turubown & Franklin 1980; Walker 1912: 60; Werner & Holsten 1984; Wickham 1896a: 309, 1896c: 168; Winter, T. G. 1983: 16; Wolcott & Montgomery 1933: 167; Wood, S. L. 1972a: 418, 1982b: 663. **(tx)** Beal & Massey 1945: 146–147; Beckwith 1972, 1972a; Benoît 1985: 186; Blackman 1919: 90, 1922b: 115–118; Blandford 1894b: 261; Blatchley & Leng 1916: 640; Bright 1976d: 146, 149, 203, 212; Chamberlin 1939: 437, 1958: 182–183; Clemens 1916; Dillon & Dillon 1961: 801, 813–814; Dodge 1938: 15, 51; Eichhoff 1868a: 402, 1878b: 274, 370; Evans, D. 1983: 34; Hagedorn 1910a: 104; Hopping, C. 1963b: 67; Keen 1929: 39; Kusch 1967: 9; Lanier 1987a: 107; LeConte 1868: 160, 177, 1876: 359–360, 1878a: 468; Lindquist, O. H. & Syme 1981: 78; Pardy 1974, 1977, 1983; Schedl 1957b: 151; Schwarz 1878: 468, 666, 1886: 41, 45, 1888: 47, 80, 1894: 16, 27; Swaine 1909: 120, 1913: 87–92, 1916b: 185, 1918a: 121–122; Syme & Nystrom 1988: 75; Thomas, J. B. 1957: 4, 1967; Titus, Meikle, & Harrison 1985: 97; Wood, S. L. 1972a: 418, 1973: 179, 1982b: 663; Zimmermann 1868: 146. **(ms)** Chenier & Philogene 1989a; Eckstein 1900c; Swaine 1912b: 142.
- decretus* Eichhoff 1868a: 402 (*Tomicus*). Lectotype ♀; New Orleans, Louisiana [USA];

IRSNB, Brussels, designated by Wood 1982b: 663. Synonymy: LeConte 1868: 177.

References: (**cc**) Hopkins 1908a: 18. (**ds**) Hagedorn 1910d: 53; Kleine 1913b: 127; Leng 1920: 341; Swaine 1909: 122. (**tx**) Eichhoff 1868a: 402, 1878b: 272; Hagedorn 1910a: 104; LeConte 1868: 177; Swaine 1909: 122, 1918a: 122.

vicinus LeConte 1874a: 72 (*Xyleborus*). Holotype ♀; British Columbia [Canada]; MCZ, Cambridge. Synonymy: Wood 1973c: 179.

References: (**ay**) Robertson 1961. (**cn**) Keen 1952c: 154; Schuder 1969: 76; Smith, G. J. & Melvin 1974b; Swaine 1918a: 121–122. (**cc**) Reid 1955: 312. (**hb**) Baker, W. L. 1972: 263; Chamberlin 1939: 438, 1958: 183; Keen 1952c: 154; Kinghorn 1960b: 50; Reid 1955: 312–319; Swaine 1918a: 121–122. (**ds**) Chamberlin 1925, 1939: 438, 1958: 183; Dodge 1938; Evans, D. 1983: 34; Evans, D., Lowe, & Hunt 1978; Gantreau & Melvin 1974: 14; Henshaw 1882: 269; Hopping 1922; Keen 1929: 39, 1952c: 154; Kleine 1934a; Leng 1920: 341; Patterson & Hatch 1945: 153; Schuder 1969: 76; Smith, G. J. & Melvin 1974b; Smith, G. S. 1930; Still, Tidsbury, & Melvin 1974a: 14; Susut & Melvin 1974; Swaine 1909: 120, 1919b: 9. (**tx**) Chamberlin 1939: 438, 1958: 183; Dodge 1938: 51–52; Evans, D. 1983: 34; Fall 1926: 208; Keen 1929: 39; LeConte 1874a: 72, 1876: 360; Swaine 1909: 120, 1918a: 121–122, 1919b: 9; Wood, S. L. 1973c: 179.

punctipennis LeConte 1878b: 624 (*Xyleborus*). Holotype ♀; Marquette, Michigan [USA]; MCZ, Cambridge. Synonymy: Wood 1973c: 179.

References: (**cn**) Easterling 1934: 129–146; Swaine 1918a: 121–122. (**cc**) Bushing 1965: 462. (**hb**) Chamberlin 1939: 438; Swaine 1918a: 121–122. (**ds**) Anonymous 1926c: 519; Blatchley & Leng 1916: 636; Chamberlin 1939: 438; Easterling 1934: 129–146; Henshaw 1882: 269, 1885: 148; Hubbard & Schwarz 1878a: 666, 1878b: 624; Leng 1920: 341; Leonard 1928: 520; Schwarz 1886: 42; Swaine 1909: 133. (**tx**) Blatchley & Leng 1916: 636; Chamberlin 1939: 438; Eichhoff 1896: 609; LeConte 1878b: 624, 666; Schwarz 1886: 42; Swaine 1909: 133, 1918a: 121, 121; Wood, S. L. 1973c: 179.

golorjankoi Pjatkitskii 1930b: 179. Syntypes, sex?; Far East: Siberia; not located.

Figures: Nakane et al. 1963: pl. 192, Nobuchi 1974: pls. 1–3, Yin, Huang, & Li 1984: 143.

Distribution: Asia (Heilongjiang, Jilin in China/ Japan/ Sakhalin Island, Siberia in E USSR).

Hosts: *Picea excelsa*, *P. glehnii*, *P. jezoensis*, *P. koraiensis*, *P. microsperma*, *Pinus densiflora*, *P. koraiensis*, *P. thunbergiana*.

Notes: (3) Pjatkitskii 1930: 182 (named aberration *quadridens*, no status), Sokanovskii 1954: 19

(incorrectly treated this species as a synonym of *angulatus* Eichhoff).

References: (**cn**) Anonymous 1980g; Florov 1949: 124; Inouye 1949a: 18, 1949b, 1955; Inouye & Yamaguchi 1955a: 235; Kurenzov 1935c: 189. (**cc**) Inouye & Yamaguchi 1955a: 235; Inouye et al. 1955: 74; Kamijo 1981; Kurenzov 1934a: 53; Nishiguchi 1959: 271. (**hb**) Inouye et al. 1955: 74; Kurenzov 1935a: 43, 1948b: 100, 1950d: 217; Stark 1952: 418; Wang 1982. (**ds**) Anonymous 1980g; Inouye 1949b; Kleine 1934a: 152; Kono 1938b: 65, 70; Kono & Tamanuki 1939: 95; Kurenzov 1934a: 53, 1935a: 43, 1935c: 189, 1936a: 111, 1936b: 350, 1938a: 59, 1950: 217; Nakane et al. 1963: 383; Nobuchi 1974: 44; Pfeffer 1935: 159; Sawamoto 1940b: 141, 146; Stark 1952: 418; Yanovskii & Tegshzhargal 1985: 415; Yin, Huang, & Li 1984: 142. (**tx**) Kurenzov 1941a: 211–212, 1948b: 100, 1950d: 217, 1959: 217; Nakane et al. 1963: 383, pl. 192; Nobuchi 1974: 44, pl. 1–3; Pjatkitskii 1930b: 179–182, 1932: 173–179; Sawamoto 1940b: 141–148; Schedl 1934f: 1645, 1941a: 42, 1953e: 22; Sokanovskii 1954: 19, 1959b: 93, 94; Stark 1952: 418.

kuniyoshii Nobuchi 1959c: 23 (*Ips*). Syntypes, sex?; Kitanakagushiku, Ryuku Islands, Japan; Nobuchi Collection, Ibaraki.

Figures: Nobuchi 1974: pls. 1–2.

Distribution: Asia (Okinawa in Ryukyu Islands).

Hosts: *Pinus luchuensis*.

References: (**ds**) Nobuchi 1974: 45. (**tx**) Nobuchi 1959c: 23, 1974: 45, pl. 1, 2.

laricis (Fabricius) 1792: 365 (*Bostrichus*). Syntypes 8, sex?; Germaniae; UZMC, Copenhagen.

Figures: Balachowsky 1949a: 270; Barbey 1925: 239, Bevan 1987: 114, Grune 1979: 144, Joly 1976b: 177, 246; Nobuchi 1974: pls. 1–3, Pfeffer 1989: pl. 22, Plaza & Gil 1982: 241, 243.

Distribution: Africa (Algeria/ Morocco), Asia (Hebei, Shanxi in China/ Japan/ Korea/ Thailand/ Turkey/ Kamchatka, Sakhalin Island, Siberia in E USSR), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Ireland/ Italy/ Luxemburg/ Netherlands/ Norway/ Poland/ Portugal/ Romania/ Sardinia/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), South America (introduced: Chile).

Hosts: *Pinus* spp., *Picea* spp., *Larix europea*.

Notes: (3) Sturm 1826: 102 (named *denticulatus*, nomen nudum, no status, synonymy in Sturm 1843: 230).

References: (**ay**) Bugnion 1887b; Chararas 1977b; Escherich 1923b: 487, 542; Feytaud 1950a; Fuchs 1911a; Leisewitz 1906: 91; Nürnberg 1926: 51; Scherb 1971; Sedlaczek 1902b: 244; Wichmann 1912a: 10. (**bv**) Bakke 1971b; Chararas 1973a, 1976b, 1977b; Grune 1979: 145; Kevdina 1897: 108; Luitjes 1976; Meixner 1937: 217; Naumann-

- Etienne 1978a; Nuorteva 1956c: 23; Prell 1930c: 635, 1931: 364; Rozhkov 1970: 155; Wichmann 1912a: 10. (**cn**) Anonymous 1979p; Barbey 1906a, 1925: 239; Bieloussov 1917: 334–337; Blandford 1892a; Borodajewskii 1930: 805–811; Browne 1968b: 491; Chararas 1961b: 69, 1978; Chorbadzhiyev 1929; Eckstein 1926: 574, 579; Egorov 1958: 1492; Eidmann & Klingstrom 1976: 240; Escherich 1917: 97–115, 1923b: 487, 542; Esterberg 1959; Feytaud 1946, 1950a, 1950b; Fisher 1937c; Fleischer 1877a; Funke 1870; Gabler 1955; Georgescu et al. 1957: 357, 449, 454; Gois 1944; Grandi 1951; Gusev 1928: 144; Gyorf 1946: 193, 195, 1959; Hanson, H. S. 1937, 1940a; Hartig 1861: 324, 1877: 190; Hess 1898: 352, 1907: 251; Hess & Beck 1914: 280, 1927: 336; Jaensch 1938: 48; Joly 1976; Judeich 1886: 67; Kauschinger 1893: 144; Keller 1903b: 48; Kholodkovskii 1912: 314; Kirchner 1860: 91; Koch 1913: 93; Kollar 1840: 362; Komarek et al. 1931: 1–256; Koppen 1882: 236; Kovacevic 1924: 21–22; Kurenzov 1935c: 189; Laidlaw 1947: 53; Lekander, M. 1951: 108; Lichtenstein & Picard 1919: 62–64; Mamaev 1929: 134–142; Marcu 1926c: 67; Marie 1924: 328–330; Mokrzecki 1933: 284; Mostovsky 1923: 287–288; Muller 1912: 186; Nosek 1951: 107, 1952b: 96; Nusslin 1913: 269; Packard 1890: 714; Pfeffer 1949b: 150, 1950c: 1; Polozhentsev 1926: 1–5; Pomocnicze 1876: 157; Rhumbler 1922: 311, 1927: 325; Saalas 1949: 344, 395; Sajevy 1928: 330; Schimitschek 1937c: 59, 1938b: 116, 1947g: 191, 1955a: 66, 1955c: 92, 1961a: 154; Schmidt 1881: 34; Schuster 1918: 102; Schwerdtfeger 1944a: 176, 1957a: 183; Shiraki 1952; Titova 1966; Tragardh 1917: 11, 1921e: 64; Wachtl 1901: 379, 381; Weber, H. 1926: 574; Wichmann 1927b: 376; Wilke 1931: 641; Wolff 1920: 233; Wolff & Krausse 1922: 104, 107; Zarco 1946a: 251; Zhang et al. 1958: 29. (**ec**) Apfelbeck 1916b; Balazy & Michalski 1960, 1964b; Barbey 1906a, 1927; Belanowskii 1930; Brannman 1938, 1940; Chararas 1959a; Cooreman 1963: 46; Elliot & Morley 1907; Fleischer 1877a; Francke-Grosman 1931; Gaulle 1906: 237; Grossmann 1931a; Gyorf 1941b, 1943: 84; Heqvist 1963: 155, 1967: 70; Hirschmann 1960, 1971a, 1971b: 39; Hirschmann & Wisniewski 1982, 1983; Hirschmann & Zirngiebl-Nicol 1961; Jahn & Sinreich 1960b; Jakaitis & Valenta 1976: 12; Jannicky 1957c; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980b, 1983; Kleine 1908c: 214, 1909a: 48, 76, 1944: 69; Korenchenko 1980a, 1987b; Kostenko 1929; Kostin 1964: 125; Krausse 1917: 123; Lazarevskaya 1962; Luitjes 1976; Lundberg 1984; Meyer 1918: 178; Michalski & Ratajczak 1989; Naumann-Etienne 1978a; Nosek 1951: 107, 1952b: 96; Nnberg 1930: 201; Nuorteva 1956a: 16, 1957b: 68, 1971: 70; Nusslin 1927: 324; Palmien 1944: 60, 1946: 195; Perris 1852: 497, 1856a: 184; Pfeffer 1923a: 332, 1932a: 11, 1949b: 147, 1950c: 1, 1957a: 196; Poinar 1972, 1975: 162; Purrini & Weiser 1985: 66; Ratzeburg 1869a: 59, 94; Rondani 1873: 140, 1876: 55; Roubal 1934a: 87; Rudnev 1926: 32–69; Ruhm 1956b: 4, 1960: 203; Saalas 1917a: 18, 1930: 118, 1949: 344, 395; Scheucher 1959: 263; Schimitschek 1930a: 329, 340, 1955a: 66; Schuster 1918: 102; Schwerdtfeger 1944a: 176, 1957a: 183; Sedlaczek 1935a: 157, 163; Sitowski 1930: 2; Stora 1938: 20; Tenkacova & Mituch 1987; Thompson, W. R. 1943: 59; Thompson, W. R. & Simmonds 1965: 27; Titova 1966; Vitzthum 1923: 165, 1926: 462; Westerboer 1963: 377; Wiackowski 1957a: 71; Wichmann 1958: 230; Wilke 1931: 641; Wisniewski 1979c: 5, 1980; Woodring 1966b: 106; Zmur 1985b. (**hb**) Altum 1881c: 300, 1883c, 1884; Apfelbeck 1916b; Bach 1864; Barbey 1901: 24, 91, 1925: 239; Bargmann 1906; Beaver & Browne 1975: 292; Beffa 1949, 1961; Binzer 1881a; Boas 1923: 354; Borodajewsky 1929b; Browne 1968b: 491; Budge 1949; Budkov 1897; Bugnion 1887b; Bukowsky 1930; Chararas 1961b: 69, 1962c: 365, 1977b; Charvat 1950; Chittenden 1890; Chorbadzhiyev 1929; Dombrowsky 1887, 1892; Drugescu 1980; Eckstein 1889, 1897, 1926: 574, 579; Eichhoff 1881a: 50, 239; Escherich 1923b: 487, 542; Everts 1900, 1903: 764; Feisthamel 1835; Feytaud 1946, 1950a; Fleischer 1877a; Fuchs 1904a, 1907: 48; Furst 1888: 112; Gabler 1955; Girard 1873; Gois 1944; Gornostaev 1916: 312; Grandi 1951; Gyorf 1957; Hagedorn 1903a; Hartig 1861: 324, 1877: 190; Henschel 1876a: 44, 238, 1880b: 257, 1885b, 1894, 1895a: 184; Hess 1898: 352; Hess & Beck 1914: 280, 1927: 336; Holmgren 1867: 113, 134; Husson & Stander 1954: 357; Jaensch 1938: 48; Joly 1976, 1976b; Judeich 1886: 67; Karpinski 1933b: 38; Karpinski & Strawinski 1948: 157; Karsch 1883: 141; Kauschinger 1883: 105, 1893: 144; Kholodkovskii 1889: 267, 1912: 314; Kleiber 1930: 183; Kleime 1908a: 98; Knotek 1894a: 558; Kollar 1840: 362, 1857: 188; Kostin 1960: 136; Krivolutsкая 1956: 837, 1960, 1973: 142; Kurenzov 1935a: 44, 1948b: 105, 1950d: 235; Kurenzov & Kononov 1961: 601; Lengerken 1939: 35, 1954: 93; Louzil 1961: 45; Luitjes 1976; Lmardoni & Leonardi 1889: 470; Michalski 1959a: 291; Milani 1894: 142; Munro 1926: 70; Naumann-Etienne 1978a; Nordlinger 1856: 18; Nuorteva 1956c: 23; Nusslin 1898: 282, 1906b: 18, 1913: 269, 1927: 324; Opanasenko & Kononenko 1966; Packard 1890: 714; Perris 1852: 497, 1856a: 184; Petrenko 1966; Pfeffer 1941b: 6, 1941c: 5; Postner 1974: 450; Prell 1930c: 635, 1931: 364; Ratzeburg 1837: 131, 1839: 158, 188; Rhumbler 1922: 311, 1927: 325; Rimski-Korsakov et al. 1949: 288; Rozhkov 1970: 155; Rupertsberger 1879: 231, 1880: 231; Saalas 1913a: 68, 90, 1949: 344, 395; Schedl 1981b: 87; Schimitschek 1930a: 329, 340, 1955a: 66; Schmidt 1881: 34; Schwerdtfeger 1944a: 176, 1957a: 183, 1981: 189; Sedlaczek

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(**ds**) Aeloque 1896; Allen, A. 1951b; Ammann & Knabl 1913; Andersch 1851; Anonymous 1979p; Atkinson 1921; Audras & Schaefer 1957; Balachowsky 1944b; Balazy & Michalski 1960; Barthe 1896; Bau 1888; Beaver & Browne 1975: 292; Beck 1817; Bedel 1888b: 401, 417; Beffa 1949; Bejer-Petersen & Jorum 1977: 32; Belousov 1916, 1917: 335; Bielz 1887; Bielz & Hampe 1853; Blanchere & Robert 1889; Boas 1923: 354; Borchert 1951; Brakman 1966b: 207; Brancsik 1871, 1906; Browne 1968b: 491, 1980d: 493; Budkov 1897; Bukowsky 1930; Buresh & Lazarov 1956; Butovitsch 1963; Butovitsch & Heqvist 1947; Calwer 1884, 1893; Cecconi 1897; Champion 1927: 173–174; Chapuis & Candeze 1853; Chararas 1961c: 95; Charvat 1950; Chittenden 1890; Cho 1957; Choo 1983: 89; Choo, Woo, & Park 1983: 176; Chorbazhievo 1929; Chrystal 1937; Crotch 1863; Debatisse 1945; Dejean 1821, 1825, 1837; Donisthorpe 1931: 122, 1933b; Duftschmidt 1825; Eder 1934; Eggers 1904; Endrodi 1958b, 1986: 217; Ericson & Sandin 1893; Ermisch 1953; Escalera 1919; Escherich 1923b: 487, 542, 1932b; Esterberg 1928, 1959; Everts 1900, 1922: 645, 1925; Eyquem 1891; Fauvel 1885; Favre 1890; Fleischer et al. 1923; Forster 1849: 439; Fowler 1891; Frey 1937; Fricken 1889: 345; Friederichs 1919; Fuchs 1904a, 1905a, 1907: 48; Fuss 1853; Gaubil 1849: 126; Gobang 1855: 745; Gornostaevev 1917: 308–315; Gouillard 1962: 113; Gozis 1875: 80; Gredler 1866: 374; Greyerz 1851; Grill 1895: 310; Grune 1979: 145; Gyllenhal 1827: 620; Gyorfi 1941b; Hagedorn 1903a, 1910d: 55; Hallett 1923a, 1923c; Hansen, V. 1939, 1956, 1964: 465; Heinemann 1908a; Hellen 1947; Hennig 1954: 261; Henschel 1895a: 184; Hess 1907: 251; Heyden 1876: 300, 1879: 140; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 712; Hickin 1963; Hlawa 1870; Hoffmann 1936: 41; Holmgren 1867: 113, 134; Horion 1951; Ihssen 1939: 336; Jamnicky 1960a; Jazentkovsky 1912: 291; Joly 1976; Kadyrov 1988: 43, 1989; Kalshoven 1958b: 173; Kaltenbach 1874: 685; Karpinski 1925: 217, 1926: 83, 1931: 36, 1933b: 38; Karpinski & Strawinski 1948: 157; Keler 1925b: 274; Keran 1949: 30; Kersten 1933: 76; Kestercanek 1881a: 12; Kiefer et al. 1942: 529; Klefbeck & Sjöberg 1960: 232; Kleine 1912a: 262, 264, 268, 1913a: 35, 1913b: 128, 1914b: 248–249, 257, 1934a: 151; Kloft & Hinks 1945: 218; Knotek 1892a: 37, 1894a: 558; Ko 1969: 279; Koltze 1901: 153; Kono 1938: 65; Koppen 1882: 236; Koschitsky 1900: 83; Kostenko 1929; Kotula 1873b: 80; Kraatz 1869: 59; Krivolutsкая 1956: 837, 1960, 1965: 241, 1973: 142, 1983; Kurenzov 1935a: 44, 1935c: 189, 1936b: 350, 1938a: 59, 1951b: 20; Kurenzov & Kononov 1961: 595, 601; Kurir 1947: 7; Lacordaire 1866: 383; Langhoffer 1915c: 158; Leclercq 1971; Lentz 1857: 139; Liegel 1886: 43; Lindberg & Saris 1952: 59; Lindemann 1884b: 264; Lokaj 1868: 64; Lomnicki 1886a: 243; Loos 1913: 411; Lucht 1987: 279; Lunardoni & Leonardi 1889: 470; Lundberg 1979: 31; Lundblad 1950c: 117; Mandl 1931: 25; Marcu 1926c: 67; Matthews & Fowler 1883: 42; Mequignon 1936: 15; Michalski 1957c: 168; Moragues 1889: 32; Munro 1921: 88, 1926: 1–77; Munster 1928: 291; Murayama 1929b: 2, 1929c: 23, 1929d: 4, 1930b: 16, 1936b: 115, 1937b: 374, 1939: 142, 1940a: 232, 1942a: 56, 1949a: 13, 1954b: 201; Murray 1853: 60; Negru 1966b: 404, 1968a: 457; Nobuchi 1974: 45; Nohira & Ogawa 1986; Numborg 1927a: 215, 1928b: 88, 119, 1954: 83; Nuorteva 1971: 68; Nusslin 1898: 282; Orest 1926c: 67; Pacher 1865: 152; Palmen 1944: 60, 1946: 195; Penecke 1927: 235; Perris 1876a: 254, 1877a: 414; Pfeffer 1924b: 472, 1931b: 74, 1935: 158, 1947c: 2, 1950b: 73, 1984: 277, 1989a: 80; Plaza & Gil 1982: 241; Pomerantzev 1907b: 494; Poppius 1900: 108; Postner 1974: 450; Rapp 1934: 732; Ratzeburg 1837: 131, 1839: 158, 188; Redtenbacher 1858: 834, 1874: 377; Reitter 1869b: 154, 1894a: 84, 1916: 305; Rimski-Korsakov et al. 1949: 288; Rosenhauer 1856: 302; Roubal 1910: 204, 1936b: 193, 1941: 273; Rozhkov 1970: 155; Rudnev 1958: 372; Saalas 1913a: 68, 90, 1917a: 18, 1930: 118, 1931: 68; Saint-Albin 1949: 2; Sainte-Claire 1914: 473; Sainte-Claire & Mequignon 1938: 449; Schaschl 1854: 133; Schaufuss 1915: 1250; Schaum 1859: 96, 1862: 101; Schedl 1959h: 100, 1967c: 72, 1971d: 429, 1971f: 147, 1980a: 26, 1981b: 87; Schilsky 1909: 188; Schimitschek 1938b: 116; Schiodte 1873: 102; Schwerdtfeger 1981: 189; Seidlitz 1872: 396, 1891b: 612; Sharp & Fowler 1893: 35; Shiraki 1952; Siebke 1875: 284; Sparre-Schneider 1889: 61; Stark 1926b: 105, 1926j: 127, 1931a: 28, 1931d: 552, 1925: 417; Stein 1868: 114; Stein & Weise 1877: 165; Stephens 1829a: 145, 1830: 357, 1839: 207; Stierlin 1898: 445; Stierlin & Gautard 1871: 293, 1906: 206; Strand 1946: 604; Strauch 1861: 122; Sturm 1826: 102, 1843: 230; Thomson 1865: 365, 1868: 222; Tragardh 1914: 100, 1917: 1–28, 1919: 237–248; Tredl 1907: 16; Tschorbadjiev 1929: 176; Villa & Villa 1833: 26; Wachtl 1876a: 455; Wessel 1877: 391; Westhoff 1882: 239; Wichmann 1927a: 79; Wiepken 1883: 89; Wilke 1931: 641; Winter, T. G. 1983: 16; Wiren 1945: 43; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 411; Yin, Huang, & Li 1984: 141; Zetterstedt 1828: 345, 1840: 192; Zinovjev 1955: 187; Zoufal 1920: 21. (**tx**) Aeloque 1896; Altman 1844; Bach 1854, 1864; Balachowsky 1944b, 1949a: 273; Barbey 1901: 24, 91; Bechstein 1818: 74, 186; Bedel 1888b: 401, 417; Beffa

1949, 1961; Bertolini 1872; Bevan 1987: 114; Boas 1923: 354; Brancsik 1871; Calwer 1858; Ceballos 1945; Chapuis & Candeze 1853; Charvat 1950; Choo 1983: 89; Dejean 1821, 1825; Dombrowsky 1887, 1892; Duffey 1953; Duftschmidt 1825; Eggers 1921: 39–43, 1927c, 1929e: 42; Eichhoff 1864b: 42, 1872d: 139, 1877a: 388, 1877b: 118, 1878b: 266, 1881a: 50, 239, 1883a: 113, 138; Endrodi 1957b; Escherich 1923b: 487, 542; Escherich & Escherich 1897; Everts 1903: 764, 1922: 645; Fabricius 1792: 365, 1801: 386; Fauvel 1885, 1889; Ferrant 1911; Ferrari 1867a: 43; Fleischer 1905, 1927; Florov 1949: 124; Formanek 1907: 43; Fricken 1889: 345; Fuchs 1911a; Gabler 1955; Gebien 1907: 197; Germar 1824; Girard 1873; Grune 1979: 144–145; Gyllenhal 1813: 354, 1827: 620; Hagedorn 1910a: 105; Hansen, V. 1956, 1964: 465; Henry 1892: 10–11; Henschel 1876a: 44, 238, 1895a: 184; Herbst 1793: 114; Heyden 1875: 391; Hoffmann 1936; Hopkins 1914: 125–126; Iablokoff-Khnzorian 1961: 105; Joly 1976, 1976b: 177, 246; Karpinski & Strawinski 1948: 157; Knotek 1892a: 37; Koch 1913: 93, 1928: 80, 104, 1932: 146; Krivolutskaya 1956: 837, 1958: 183; Kuhnt 1913: 1058; Kurenzov 1941a: 212, 1948b: 105; Lacordaire 1866: 383; Letzner 1891: 376; Leunis 1886: 180; Louzil 1961: 108; Lovendal 1889b: 59, 1898: 157; Lucht 1987: 279; Lunardoni & Leonardi 1889: 470; Meixner 1937: 1217; Murayama 1929: 29–30, 1930b: 16, 19–21, 1936: 113–120, 1937b: 372, 374, 1939: 142–143, 1940a: 232, 1954b: 201; Negru 1966b: 404; Niisima 1909: 150; Nobuchi 1974: 45, pl. 1–3; Nordlinger 1848: 235, 1856: 18; Numberg 1926: 51, 1954: 83; Panzer 1795a: 285; Paykull 1800: 147; Perris 1877a: 414; Pfeffer 1932b: 27, 1933: 3–54, 1941b: 6, 1941c: 5, 1947e: 2, 1955a: 258, 1989a:pl. 22; Pjatriutskii 1930b: 179; Plaza & Gil 1982: 241, 243; Portevin 1935: 338; Postner 1974: 450; Prell 1929: 90; Ratzeburg 1837: 131, 1839: 158, 188; Redtenbacher 1849a: 357, 1849b: 26, 1858: 834, 1874: 377; Reitter 1894a: 84, 1913a: 110, 1916b: 305; Rey 1892b: 30; Rhumbler 1922: 311, 1927: 325; Rupertsberger 1879: 231, 1880: 231; Saalas 1913a: 68, 90, 1914: 304–305, 1916: 91–95, 110–116, 1919, 1949: 344, 395; Sahlberg 1836: 145; Schedl 1934f: 1645, 1946a: 6, 1952f: 87, 1959b: 100, 1980a: 26, 1981b: 88; Scherlb 1971; Schimitschek 1937c: 59, 1955e: 92; Schlechtendal & Wunsche 1879: 126; Seidlitz 1872: 396, 1891b: 612; Sharp & Muir 1912: 572; Spessivtsev 1913a: 84, 1922a: 486, 1925a: 191, 1931: 81–82; Stark 1925: 300–301, 1952: 417; Stephens 1829a: 145, 1829b: 12, 1830: 357, 1839: 207; Stierlin 1898: 445; Taschenberg 1880: 220, 228; Thompson 1865: 365, 1868: 222; Wachtl 1895: 8; Weber, L. 1912: 30; Yin, Huang, & Li 1984: 141; Zetterstedt 1828: 345, 1840: 192. **(ms)** Escherich 1932b; Hartig 1834: 108; Heinemann 1908a; Henschel 1880b: 257, 1880c: 60; Michalski 1959a: 291;

Schwappach 1924: 56; Sedlaczek 1902a: 126, 1913: 455; Weber, L. 1912: 30.

longicollis (Gyllenhal) 1827: 621 (*Bostrichus*). Syn-types, sex?, in Scania, in Vermelandia; not located. Figures: Balachowsky 1949: 272, Barbey 1925: 243, Grune 1979: 140, Joly 1976b:pls. 11–12, Pfeffer 1989a:pls. 11–12, Plaza & Gil 1982: 241, 243.

Distribution: Asia (Syria/ Turkey), Europe (Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ Finland/ France/ Greece/ Germany/ Hungary/ Italy/ Norway/ Poland/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Pinus* spp.

References: **(ay)** Escherich 1923b: 546; Feytaud 1950; Fuchs 1911a; Numberg 1926: 51. **(bv)** Chararas 1973a, 1976b; Grune 1975: 141; Prell 1930c: 639, 1931: 367. **(cn)** Barbey 1925: 243; Chararas 1978; Chorbadzhevo 1929; Escherich 1917: 97–115, 1923b: 546; Esterberg 1959; Feytaud 1950a; Fice 1961: 173–204; Joly 1976; Kholodkovskii 1912: 279; Kobakhidze 1960: 1853; Nusslin 1913: 279; Rudnev 1965b; Scheyvrew 1905b: 1104; Schimitschek 1944: 226; Schwerdtfeger 1944a: 177, 1957a: 183; Wichmann 1927b: 353, 378. **(ec)** Acatay 1943b; Karpinski 1932a: 95, 1933: 52–56; Kleine 1908c: 214; Kobakhidze 1960: 1853; Nikitsky 1978; Nusslin 1927: 337; Pfeffer 1960: 346; Schwerdtfeger 1944a: 177, 1957a: 183; Tragardh 1927a: 193, 1928: 776. **(hb)** Adelung 1905; Barbey 1925: 243; Bukowsky 1930; Chararas 1962c: 370; Charvat 1950; Chorbadzhevo 1929; Dombrowsky 1887, 1892; Eichhoff 1881a: 50, 248; Escherich 1923b: 546; Feytaud 1950a; Györfi 1957; Henschel 1895a: 185; Joly 1976; Karpinski & Strawinski 1948: 157; Kholodkovskii 1912: 279; Lengerken 1939: 36, 1954: 93; Michalski 1959a: 291; Nusslin 1913: 279, 1927: 337; Pfeffer 1941b: 6, 1989a: 77; Postner 1974: 451; Prell 1930c: 639, 1931: 367; Schedl 1980a: 27, 1981b: 89; Scheyvrew 1905b: 1104; Schimitschek 1944: 226; Schwerdtfeger 1944a: 177, 1957a: 183, 1981: 189; Spessivtsev 1913a: 80; Stark 1952: 408; Tschorbadjev 1929: 176; Wachtl 1876a: 460; Wichmann 1927b: 353, 378. **(ds)** Acatay 1943: 3; Acloque 1896; Barthle 1896; Bickhardt 1916; Bistrom & Vaisanen 1988: 42; Brakman 1966b: 206; Bukowsky 1930; Buresh & Lazarov 1956; Butovitsch 1963; Calwer 1884, 1893; Champion 1894; Charvat 1950; Chorbadzhevo 1929; Endrodi 1958b; Ericson & Sandin 1893; Escherich 1923b: 546; Esterberg 1928, 1959; Fedorov 1930; Gaubil 1849: 126; Grill 1895: 310; Grune 1975: 141; Gyllenhal 1827: 621; Hagedorn 1910d: 55; Hansen, V. 1939, 1956; Hellen 1947; Hennig 1954: 261; Henschel 1895a: 185; Heyden, Reitter, & Weise 1833: 182, 1891: 673, 1906: 712; Horion 1951; Jazentkovsky 1912: 291; Joly 1976; Karpinski 1931: 20, 1932a: 95, 1932b: 55; Karpinski & Strawinski 1948: 157; Keler 1925b: 274; Klefbeck

& Sjöberg 1960: 232; Kleine 1912a: 262, 1913a: 35, 1913b: 129, 1934a: 151; Kozikowsky & Kuntze 1925: 24; Krogerus 1944: 32; Lomnicki 1913b: 148; Lovendal 1890c: 209; Lucht 1987: 279; Lundberg 1981: 151; Mequignon 1936: 54; Munster 1928: 290; Numborg 1928b: 88, 120, 1954: 81, 1960b: 160; Pfeffer 1935: 158, 1947d: 127, 1947e: 14, 1960: 346, 1984: 277, 1989a: 77; Pittioni 1943: 176; Pjatrinskii 1930a: 165; Plaza & Gil 1982: 241; Postner 1974: 451; Reitter 1894a: 85, 1916: 305; Richter 1892; Roubal 1941: 273; Rudnev 1926: 32–69, 1965b; Sainte-Claire 1914: 473; Sainte-Claire & Mequignon 1938: 449; Schaufuss 1915: 1250; Schaum 1859: 96, 1862: 101; Schedl 1959h: 100, 1961b: 185, 1971d: 431, 1980a: 27, 1981b: 89; Schilsky 1909: 188; Schwerdtfeger 1981: 189; Seidlitz 1872: 395, 1891a: 566, 1891b: 612; Siebke 1875: 284; Stark 1926b: 105, 1926g: 154, 1926j: 127, 1952: 408; Stein 1868: 114; Stein & Weise 1877: 165; Stierlin 1898: 444; Thomson 1865: 364, 1868: 222; Tredl 1907: 16; Tschorbadjiev 1929: 176; Wachtl 1876a: 460. (tx) Aeloque 1896; Balachowsky 1949a: 271–273; Charvat 1950; Dombrowsky 1887, 1892; Eggers 1910: 38, 1921: 42; Eichhoff 1864: 46, 1868d: 419, 1876: 378, 1878b: 268, 1881a: 50, 248, 1883a: 114, 139; Endrodi 1957b; Escherich 1923b: 546; Ferrari 1867a: 45–46; Fleischer 1927; Fuchs 1911a; Gebien 1907: 197; Grune 1979: 140–141; Gyllenhal 1827: 621; Hagedorn 1910a: 105; Hansen, V. 1956; Henschel 1895a: 185; Iablokoff-Khnzorian 1961: 105; Joly 1976, 1976b: pl. 11–12; Karpinski & Strawinski 1948: 157; Kuhn 1913: 1058; Letzner 1891: 377; Lovendal 1890c: 209; Lucht 1987: 279; Numborg 1926: 51, 1954: 81; Pfeffer 1933: 3–54, 1941b: 6, 1947e: 44, 1955a: 261, 1989a: pl. 11–12; Plaza & Gil 1982: 241, 243; Portevin 1935: 338; Postner 1974: 451; Quaschik 1953: 35; Reitter 1894a: 85, 1913a: 111, 1916: 305; Schedl 1934f: 1645, 1959h: 100, 1961b: 187, 1980a: 27, 1981b: 89; Seidlitz 1872: 395, 1891a: 566, 1891b: 612; Sokanovskii 1928: 667–668; Spessivtsev 1913a: 79–80, 1922a: 483, 490, 1925a: 190, 1931: 76–77; Stark 1952: 408; Stierlin 1898: 444; Thomson 1865: 364, 1868: 222; Wachtl 1895: 8; Weber, L. 1912: 30. (ms) Eichhoff 1868d: 419; Michalski 1959a: 291; Rohrl 1914b: 157; Sedlaczek 1913: 455; Weber, L. 1912: 30.

oblitus Perris 1862: 218 (*Tomicus*). Syntypes ♂ ♀;

Les montagnes du Guadarrama (Espagne); Perris Collection. Synonymy: Pfeffer 1955: 261.

References: (cc) Perris 1862: 218. (hb) Dombrowsky 1892; Wachtl 1876a: 460. (ds) Blanchère & Roberts 1889; Gemminger & Harold 1872: 2691; Gozis 1875: 80; Lacordaire 1866: 383; Schilsky 1909: 188; Stein 1868: 114; Stein & Weise 1877: 165; Wachtl 1876a: 460. (tx) Bertolini 1872; Dombrowsky 1892; Eichhoff 1868d: 419, 1876a: 378; Ferrari 1867: 45–46; Lacordaire 1866: 383; Letzner 1891:

377; Perris 1862: 218; Pfeffer 1955: 261. (ms) Eichhoff 1868d: 419.

multidentatus (Murayama) 1953: 34 (*Ips*). Holotype ♂; Shimamoto, Hirose, Jakuchi; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan).

Hosts: *Pinus densiflora*.

References: (cn) Murayama 1953: 34, 1954a: 9. (ds) Murayama 1951c: 4, 1954a: 9, 1954b: 171; Nobuchi 1966d: 35, 1974: 52. (tx) Murayama 1953: 34, 1954b: 171; Nobuchi 1966d: 35, 1974: 52.

nankinensis Kurenzov & Kononov 1966: 32. Holotype ♂; China: near Nankin; ISBN, Novosibirsk, USSR.

Figures: Kurenzov & Kononov 1966: 32 (male declivity).

Distribution: Asia ("near Nanking" in China).

Hosts: *Pinus thumbergiana*.

References: (tx) Kurenzov & Kononov 1966: 32.

pinivora Schedl 1961b: 187. Holotype ♂; Türkei, Catak bei Orhaneli; Schedl Collection in NHMW, Wien.

Distribution: Asia (Turkey).

Hosts: *Pinus nigra*.

References: (ds) Pfeffer 1984: 277. (tx) Schedl 1961b: 187, 1979c: 195.

proximus (Eichhoff) 1868b: 403 (*Tomicus*). Syn-types, sex?; Europ. mer.; Hamburg Museum, lost. Figures: Alkan 1946: 113, Balachowsky 1949a: 266, 270, Barbey 1925: 237, Grune 1979: 142, Nobuchi 1966d: pl. 6, 1974: pl. 1, 3, Pfeffer 1989a: pl. 11, Plaza & Gil 1982: 241, 245.

Distribution: Asia ("Manchuria" in China/ Japan/ Korea/ Turkey/ Siberia in E USSR/ Vietnam), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Netherlands/ Norway/ Poland/ Portugal/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), introduced into Madagascar.

Hosts: *Pinus densiflora*, *P. halepensis*, *P. koraiensis*, *P. parviflora*, *P. thumbergiana*, *P. spp.*, rare in *Picea* spp.

References: (ay) Escherich 1923b: 459, 487, 543; Fuchs 1911a; Numborg 1926: 5, 1928a: 141; Nusslin 1911a: 51; Scheyvrew 1889a: 21; Wichmann 1912a: 10. (bv) Kevdina 1897: 108; Nuorteva 1956c: 67; Wichmann 1912a: 10. (cn) Andersson & Lekander 1966: 684; Bakke 1960: 313; Barbey 1925: 237; Chararas 1961b: 69; Chorbazdzhevo 1929; Dehlen & Langstrom 1977; Eckstein 1926: 574; Egorov 1958: 1492; Eidmann 1970a, 1973; Eidmann & Klingstrom 1976: 240; Escherich 1923b: 459, 487, 543; Esterberg 1959; Florov 1949: 126; Gabler 1955; Grandi 1951; Inouye 1949a: 13, 93, 1949b; Jahn 1960b; Judeich & Nitsche 1895: 500; Juutinen 1960: 30; Kamushnui 1925: 14–16; Kholodkovskii 1912: 315; Koch 1913: 106; Koehler & Zdanowicz 1954: 19–51; Lekander

- 1955b: 19; Lekander & Remerfelt 1955: 10; Lekander, M. 1951: 105; Lindgren 1980a: 66; Lonshehakov & Lure 1960; Mamaev 1929: 134–142; Mathiesen 1952: 305; Mathiesen-Kaarik 1953: 6; Megalov & Bazhenov 1927: 1–29; Mokrzecki 1933: 287; Nusslin 1883: 152, 1913: 269; Oda, Kto, & Nobuchi 1964; Polozhentzev 1926: 1–5; Rhumbler 1922: 311, 1927: 325; Saalas 1949: 344, 395; Schimitschek 1937c: 60, 1944: 226, 1955a: 80, 83, 1955c: 92; Schwerdtfeger 1957a: 183, 1968a; Sedlacek 1921: 339; Shiraki 1952; Titova 1966; Tragardh 1917: 11, 28, 1919a: 104, 1921e: 64, 1927c: 83; Tragardh & Butovitsch 1936: 577; Tullgren 1916: 104; Wachtl 1901: 379, 381; Weber, H. 1926: 574; Wichmann 1927b: 352; Zarco 1946a: 251. **(ec)** Acatay 1943b: 3; Annila & Petaisto 1978; Apfelbeck 1916b; Balazy & Michalski 1964b; Barbey 1927; Bogdanova 1987; Chararas 1959a, 1964b; Cooreman 1963: 46; Fuchs 1937; Golovyanko 1926: 1–87; Graham 1969: 879; Gyofei 1962: 214; Heliovaara & Lilja 1989; Henningson & Lundstrom 1974; Heqvist 1963: 155; Hubenthal 1902: 291; Hughs & Jackson 1958: 73; Jamnicky 1957c: 20; Kakuliya 1967; Kakuliya & Devdariani 1965; Kangas 1946b: 23; Kleine 1908c: 214; Kosarievskaya & Mamajev 1962: 451; Kostenko 1929; Kostin 1964: 125; Koyama 1963; Lazarevskaya 1962; Lindquist, E. E. 1969c; Lovaszy 1941: 195; Loytyniemi & Hiltunen 1976; Lundberg 1984; Mathiesen 1952: 305; Mathiesen-Kaarik 1953: 6, 1960c; Meyer 1934: 615; Michalski & Ratajczak 1989; Novak, P. 1952: 417; Nuorteva 1956a: 17, 1957b: 50, 1959d: 201, 1968a, 1970, 1971: 70; Nusslin 1927: 337; Okolow 1963; Palmen 1944: 60, 1946: 195; Pfeffer 1928b: 6; Poinar 1972, 1975: 163; Ruhm 1956b: 4, 1960: 203; Saalas 1917a: 18, 1928: 652, 1930: 118, 1949: 344, 1955, 1951: 14; Schedl 1936f: 172; Schimitschek 1955: 80, 83; Schwerdtfeger 1944a: 176, 1957a: 183; Sedlacek 1908: 52, 1935a: 163; Thompson, W. R. 1943: 82; Titova 1966; Tudor 1969: 34; Vitzthum 1923: 165. **(hb)** Alkan 1946: 113; Annila & Petaisto 1978; Apfelbeck 1916b, 1917; Bakke 1960a: 313, 1968a: 441–602; Barbey 1901: 24, 90, 1925: 237; Bargmann 1906; Beffa 1961; Bejer-Petersen 1957; Borodajewsky 1930c, 1931: 157–159; Budkov 1897; Butovitsch & Spaak 1939: 1–120; Cecconi 1906, 1924; Chararas 1961b: 69, 1962c: 371; Charvat 1950; Chorbadzhievo 1929; Dombrowsky 1887, 1892; Dzhambazishvili 1961: 751–757, 1962; Eckstein 1897, 1926: 574; Eichhoff 1881a: 50, 235; Eidmann 1973; Eidmann & Klingstrom 1976: 240; Escherich 1923b: 459, 487, 543; Everts 1903: 763; Fuchs 1904a, 1907: 48, 1911b; Gabler 1955; Gomostaev 1916: 312, 1917: 308–315; Grandi 1951; Gyofei 1957; Henschel 1894, 1895a: 185; Judeich & Nitsche 1895: 500; Karpinski 1933b: 38; Karpinski & Strawinski 1948: 157; Khartinov 1924: 199–204; Kholodkovskii 1889: 270, 1912: 315; Knotek 1894a: 558, 1897: 157, 1898b: 331; Kostin 1960: 136; Krivolutsкая 1960; Kurenzov 1950d: 235; Lekander 1959a: 84; Lengerken 1939: 39, 1954: 93; Lindgren 1980a: 66; Lunardoni & Leonardi 1889: 473; Nuorteva 1956c: 67, 1968a, 1970; Nusslin 1898: 274, 281, 1906b: 16, 1913: 269, 1927: 337; Petrenko 1966; Pfeffer 1941b: 6, 1941c: 7, 1989a: 79; Postner 1974: 450; Rhumbler 1922: 311, 1927: 325; Rimski-Korsakov et al. 1949: 291; Rozhkov 1970: 157; Rudnev 1926: 32–69; Saalas 1913a: 68, 90, 1949: 344, 395, 1951: 14; Schedl 1981b: 88; Schimitschek 1944: 226, 1955a: 80, 83; Schwerdtfeger 1944a: 176, 1957a: 183, 1981: 189; Sedlacek 1921: 339, 1935a: 163; Spessivtsev 1913a: 86; Stark 1952: 411; Tragardh 1921e: 64, 1927c: 83, 1930c: 470, 1931: 56, 1939b: 159, 219; Tschorbadjiev 1929: 176; Virkki 1960: 3–16; Wachtl 1876a: 460, 1901: 379, 381; Weber, H. 1926: 574; Wichmann 1927b: 352. **(ds)** Alluaud 1900: 441; Ammann & Knabl 1923; Andras & Schaefer 1957; Bakke 1960a: 313; Barthe 1896; Bay 1944: 320; Bejer-Petersen & Jorum 1977: 32; Bistrom & Vaisanen 1988: 42; Borchert 1951; Brakman 1966b: 207; Browne 1980c: 482; Budkov 1897; Buresh & Lazarov 1956; Butovitsch 1963; Butovitsch & Heqvist 1947; Cecconi 1906; Champion 1894; Chararas 1961c: 93; Charvat 1950; Cho 1957; Choo 1983: 90; Choo & Woo 1985: 165; Chorbadzhievo 1924d, 1929; Eder 1934; Endrodi 1958b; Escalera 1919; Escherich 1923b: 459, 487, 543, 1932b; Esterberg 1928, 1959; Everts 1922: 645, 1925; Fauvel 1885; Favre 1890; Fuchs 1904a, 1905a, 1907: 48; Gemminger & Harold 1872: 2691; Gillerfors 1966; Gomostaev 1917: 308–315; Grill 1895a: 310; Grune 1979: 143; Hagedorn 1910d: 58; Hansen, V. 1939, 1956, 1964: 465; Heinemann 1908a; Hellen 1947; Henschel 1894: 380, 1895a: 185; Heyden 1875: 39; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 712; Horion 1951; Inouye 1949b; Jazentkovsky 1912: 291; Judeich & Nitsche 1895: 500; Karpinski 1925: 217, 1926: 83, 1931: 36, 1933b: 38; Karpinski & Strawinski 1948: 157; Keler 1922b: 211, 1925b: 274; Klefbeck & Sjoberg 1960: 232; Kleine 1912a: 217, 262, 268, 1913a: 35, 1913b: 128, 1914b: 287, 1934a: 151; Knotek 1892: 37, 1894a: 558, 1898b: 331; Ko 1969: 280; Koltze 1901: 153; Kostenko 1929; Kozikowsky & Kmitze 1925: 20; Krivolutsкая 1960, 1983; Kurenzov 1936b: 350; Kurir 1947c: 7; Langhoffer 1915c: 158; Leclercq 1971; Lekander 1955b: 19; Lengerken 1954: 93; Lindberg & Saris 1952: 59; Lonnicki 1913b: 348; Lucht 1987: 279; Lunardoni & Leonardi 1889: 473; Lundberg 1974: 92, 1979: 31, 1981: 151; Lundblad 1950c: 117; Mahler 1987: 233; Mandl 1931: 25; Munster 1922b: 134, 1928: 291; Murayama 1929b: 2, 1929c: 23, 1929e: 45, 1930a: 1, 1930b: 16, 1936a: 129, 1936b: 116, 1937b: 375, 1948: 2, 1949a: 11, 13, 1949c: 102, 1951c: 4, 1954b: 171, 1955: 99; Nobuchi 1966d:

- 37, 1974: 46; Novak, P. 1952: 417; Nunberg 1928b: 88, 117, 1954: 81; Nuorteva 1956b: 168, 1971: 68; Nusslin 1898: 274, 281; Palm 1955c: 45, 1962a: 183; Palmen 1944: 60, 1946: 195; Pfeffer 1924b: 471, 1928b: 6, 1931b: 74, 1935: 158, 1947d: 127, 1947e: 4, 1989a: 79; Pinheiro 1965: 352–364; Pittioni 1943: 176; Platonoff 1942: 64, 1943: 141; Plaza & Gil 1982: 241; Pomerantzev 1907b: 494; Poppius 1900: 108; Postner 1974: 450; Prossen 1913: 83; Rapp 1934: 731; Reitter 1894a: 84, 1916: 305; Rimski-Korsakov et al. 1949: 291; Ronbal 1941: 273; Rozhkov 1970: 157; Saalas 1913a: 68, 90, 1917a: 18, 1930: 118, 1931: 68; Sahlberg 1900: 105; Sainte-Claire & Mequignon 1938: 449; Schaufuss 1915: 1250; Schedl 1960c: 172, 1967c: 72, 1969a: 205, 1971d: 429, 1973c: 378, 1975a: 452, 1980a: 27, 1981b: 88; Schilsky 1909: 188; Schreiner 1897: 369; Schwerdtfeger 1981: 189; Seidlitz 1891a: 566, 1891b: 611; Shiraki 1952; Stark 1926b: 105, 1926j: 127, 1931a: 28, 1931d: 551, 1952: 411; Stein & Weise 1877: 164; Stierlin 1898: 444; Strand 1946: 604; Takahasi & Ito 1951: 159–161; Tragardh 1917: 1–28, 1919: 237–248, 1935: 1–268, 1939b: 159, 219; Tredl 1907: 16; Tschorbadjiev 1929: 176; Wachtl 1876a: 460; Wanka 1908: 231; Wegelius 1960: 107; Wichmann 1927a: 78; Yanovskii 1974, 1977a, 1989: 64; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 411; Zinovjev 1955: 187; Zolk 1937: 147–172. **(tx)** Alkan 1946: 113; Balachowsky 1949a: 273; Barbey 1901: 24, 90; Beffa 1961; Bejer-Petersen 1957; Charvat 1950; Choo 1983: 90; Chorbadzhiev 1924d; Dombrowsky 1887, 1892; Eggers 1921: 39–43, 1924: 41, 1932c: 33; Eichhoff 1868b: 403, 1872d: 139, 1877c: 388, 1878b: 262, 1881a: 50, 235, 1883a: 113, 138; Endrodi 1957b; Escherich 1923b: 459, 487, 543; Everts 1903: 763, 1922: 645; Fauvel 1885; Ferrari 1967b: 112; Fleischer 1927; Formanek 1907: 43; Fuchs 1911a; Gabler 1955; Gebien 1907: 197; Grune 1979: 142–143; Hagedorn 1910a: 105; Hansen, V. 1956, 1964: 465; Henschel 1895a: 185; Iablukoff-Khnzorian 1961: 105; Judeich & Nitsche 1895: 500; Karpinski & Strawinski 1948: 157; Keler 1923a: 166–186; Knotek 1892a: 37; Koch 1913: 106, 1928: 83, 1932: 129; Kuhnt 1913: 1058; Kurenzov 1941a: 213; Letzner 1891: 376; Lovendal 1889b: 58, 1898: 154; Lucht 1987: 279; Luardoni & Leonardi 1889: 473; Murayama 1929: 22–30, 1930b: 16, 19–20, 31, 1934c: 299, 1936a: 128–129, 1937c: 375, 1954b: 171, 1955: 99; Niisima 1909: 149, 1910a: 11; Nobuchi 1966d: 37, pl. 6, 1974: 46, pl. 1, 3; Nunberg 1926: 51–59, 1928a: 141, 1954: 81, 1956c: 163–164; Nusslin 1911a: 51; Pfeffer 1932b: 27, 1933: 3–54, 1941b: 6, 1941c: 7, 1947e: 4, 1955a: 259, 1989a: pl. 11; Plaza & Gil 1982: 241, 245, 248; Postner 1974: 450; Quaschik 1953: 35; Reitter 1894a: 84, 1913a: 109, 1916: 305; Rey 1892b: 30; Rhumbler 1922: 311, 1927: 325; Saalas 1913a: 68, 90, 1914: 304–306, 1919, 1949: 344, 395; Schedl 1934f: 1645, 1941a: 42, 1965c: 51, 1980a: 27, 1981b: 88; Schexyrew 1889a: 21; Schimitschek 1937c: 60, 1955c: 92; Seidlitz 1891a: 566, 1891b: 611; Spessivtsev 1913a: 81, 86, 1922a: 484, 490, 1925a: 191, 1925b: 21, 1931: 81; Stark 1925: 300–301, 1952: 411; Stierlin 1898: 444; Teplouchov 1890: 263; Wachtl 1895: 8; Weber, L. 1912: 30. **(ms)** Escherich 1932b; Fuchs 1911b; Heinemann 1908a; Keler 1925a: 166–186; Lekander 1959a: 84; Sedlacek 1913: 455; Weber 1912: 30.
- omissus* Eichhoff 1872d: 138 (*Tomicus*). Syntypes, sex?, Nenstadt-Eberswalde; Hamburg Museum, lost. Synonymy: Eichhoff 1881a: 236.
- References: **(hb)** Dombrowsky 1892; Wachtl 1876a: 460. **(ds)** Gemminger & Harold 1872: 2691; Kraatz 1876: 39, 1896b: 39; Schilsky 1909: 188; Stein & Weise 1877: 164; Wachtl 1876a: 460. **(tx)** Balachowsky 1949a: 273; Dombrowsky 1892; Eichhoff 1872d: 138, 1877b: 118–119, 1877c: 388, 1878b: 264, 1881a: 236; Letzner 1891: 376.
- fejferi* Keler 1925a: 191 (*lps*). Holotype, sex?, Zwierzyniec Lubelski in Polen; not located. Synonymy: Nunberg 1956: 164.
- References: **(tx)** Keler 1925a: 191–196, 1926: 169–170; Nunberg 1956c: 163–164, 168; Schedl 1934f: 1644. **(ms)** Keler 1925a: 194–196.
- starki** Spessivtsev 1926a: 217. Syntypes ♂ ♀; Gouv. Orlov (Mittel-Russland); Spessivtsev Collection. Figures: Yin, Huang, & Li 1984: 140 (adult). Distribution: Asia (Heilongjiang, Sichuan, Yunnan in China/ Sakhalin Island, E USSR) Europe (Finland/ Poland/ W USSR). Hosts: *Picea ajanensis*, *P. asperata*, *P. excelsa*, *P. koraiensis*, *P. likiangensis*, *P. obovata*, *Abies faxoniana*, *Pinus densata*.
- References: **(bv)** Grune 1979: 143. **(cn)** Esterberg 1959; Florov 1949: 130; Kontkanen 1932: 62; Kurenzov 1935c: 188; Nestertschuk 1930: 176; Sierpinski 1958: 69. **(cc)** Karpinski 1932a: 103. **(hb)** Borodajewsky 1928, 1929: 515–521, 670–672, 1930a: 249–251, 1931: 155–156; Karpinski 1933b: 38; Karpinski & Strawinski 1948: 157; Kurenzov 1935a: 20, 44, 1948b: 111; Postner 1974: 452; Stark 1952: 409. **(ds)** Esterberg 1959; Grune 1979: 143; Hansen, V. 1939; Hellen 1947; Jakaitis 1985; Karpinski 1931: 18, 36, 1932a: 103, 1933b: 38; Karpinski & Strawinski 1948: 157; Klefbeck & Sjöberg 1960: 232; Kleine 1934a: 152; Kontkanen 1932: 62; Krivolitskaya 1983; Kurenzov 1935a: 20, 44, 1935c: 188, 1941: 214–215, 1951b: 20; Nunberg 1954: 81; Nuorteva 1971: 71; Postner 1974: 452; Stark 1931a: 28, 1931d: 552, 1952: 409; Strand 1946: 604; Yakaitis 1985; Yanovskii & Tegshzhargal 1985: 415; Yin, Huang, & Li 1984: 139; Zinovjev 1955: 187. **(tx)** Grune 1979: 143; Karpinski & Strawinski 1948: 157; Krivolitskaya 1958: 183; Kurenzov 1941a: 214, 1948b: 111; Kurenzov & Kononov 1966: 32; Nobuchi

1959c: 24; Nunberg 1954: 81; Pfeffer 1955a: 255; Schedl 1934f: 1645; Sokanovskii 1929: 521–526; Spessivtsev 1926a: 217, 1931: 150; Stark 1927: 227–230, 1952: 409.

suturalis (Gyllenhal) 1827: 622 (*Bostrichus*). Syn-types ♂ ♀; Europa; Gyllenhal Collection.

Figures: Barbey 1925: 236, Grune 1979: 144, Nobuchi 1966d: pl. 6, 1974: pls. 1, 3, Plaza & Gil 1982: 243, Yin, Huang, & Li 1984: 140.

Distribution: Asia (Jilin, Liaoning, Shanxi, Sichuan, Yunnan in China/ Japan/ Korea/ Sakhalin Island, Siberia in E USSR), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Netherlands/ Norway/ Poland/ Portugal/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Pinus* spp., *Picea* spp., *Larix* spp., *Abies delavayi*.

References: (ay) Chararas 1977b; Escherich 1923b: 487, 543; Feytaud 1950a; Fuchs 1911a; Nunberg 1926: 51; Scherb 1971. (bv) Balazy & Michalski 1964b; Chararas 1977b; Choo, Woo, & Park 1988; Grune 1979: 145; Luitjes 1976; Naumann-Etienne 1978a; Nuorteva 1956c: 22, 28; Rozhkov 1970: 156. (cn) Anonymous 1978w, 1979p, 1980g; Barbey 1925: 236; Bielussov 1917: 334–337; Chorbadzhevo 1929; Egorov 1958: 1492; Eidmann 1971; Escherich 1917: 97–115, 1923b: 487, 543; Esterberg 1959; Feytaud 1950a; Florov 1949: 127; Gabler 1955; Gusev 1928: 144; Hallett 1923: 13–14; Hanson, H. S. 1937, 1940a; Jahn 1960; Joly 1976; Judeich & Nitsche 1895: 500; Kangas 1937, 1938: 11–20, 73–98; Kholodkovskii 1912: 315; Kobakhidze 1960: 1853; Koch 1913: 108, 123; Kovacevic 1924: 21–22; Kozikowsky 1929: 254; Laidlaw 1947: 53; Lekander 1952b: 5; Marcu 1926c: 67, 1930: 327–336; Mathiesen-Kaarik 1953: 11; Muller 1912: 186; Nusslin 1913: 269; Pfeffer 1948d: 235, 1950c: 3; Rhumbler 1922: 311, 1927: 325; Rozhkov 1957: 71; Saalas 1949: 344, 396; Schimitschek 1937c: 59, 1955a: 80, 83, 1955c: 92; Schwerdtfeger 1944a: 176, 1957a: 183; Shiraki 1952; Titova 1966; Wachtl 1901: 381; Wichmann 1927b: 352. (cc) Balazy & Michalski 1960; Barbey 1927; Brammanis 1938, 1940; Chararas 1957d; Donisthorpe 1933a; Francke-Grosmann 1931a; Graham 1969: 880; Hopkins 1908a; Jakaitis & Valenta 1976: 12; Kangas 1937, 1946b: 23; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1980b, 1983; Kleine 1908c: 214, 1909a: 48, 1944: 70; Knoche 1908b: 201; Kobakhidze 1960: 1853; Kostenko 1929; Kostin 1964: 125; Krivosheina 1974; Kurenzov 1934a: 58; Luitjes 1976; Lundberg 1984; Mathiesen-Kaarik 1953: 11; Meyer 1934: 614; Michalski & Ratajczak 1989; Naumann-Etienne 1978a; Nuorteva 1956a: 17, 1957b: 68, 1968a, 1970, 1971:

70; Nusslin 1927: 336; Palmen 1944: 60, 1946: 195; Perris 1856a: 244; Pfeffer 1923a: 332, 1925b: 6, 1950c: 3; Poinar 1975: 164; Rondani 1873: 140; Ruhm 1956b: 4, 1960: 203; Ruschka 1921: 241; Saalas 1917a: 18, 1928: 651, 1949: 344, 396, 1951: 14; Schimitschek 1955a: 80, 88; Schwerdtfeger 1944a: 176, 1957a: 183; Sedlaczek 1935a: 163; Thompson, W. R. 1943: 59; Titova 1966; Wiackowski 1957a: 43; Yanovskii 1977b; Zinovjev 1958: 385. (hb) Barbey 1901: 24, 92, 1925: 236; Beffa 1961; Borodajewsky 1930c, 1931: 157–159; Budge 1949; Budkov 1897; Bukowsky 1930; Chararas 1962c: 369, 1977b; Charvat 1950; Chorbadzhevo 1929; Dombrowsky 1887, 1892; Eggers 1906; Eichhoff 1881a: 51, 242, 1882a: 241; Elton et al. 1964; Escherich 1923b: 487, 543; Everts 1903: 764; Feytaud 1950a; Fuchs 1904a; Gabler 1955; Gornostaev 1916: 312; Györfi 1957; Hagedorn 1903a; Henschel 1885b, 1895a: 186; Joly 1976; Judeich & Nitsche 1895: 500; Karpinski 1933b: 38; Karpinski & Strawinski 1948: 157; Kholodkovskii 1889: 270, 1912: 315; Knotek 1897: 136, 160, 1895b: 332; Kostin 1960: 135; Krivolutskaya 1956: 836, 1960, 1973: 142; Kurenzov 1935a: 44, 1948b: 104, 1950d: 235; Lengerken 1939: 39, 1954: 93; Luitjes 1976; Lunardoni & Leonardi 1889: 473; Madon 1930: 99; Marikovskii 1956: 73; Munro 1926: 70; Naumann-Etienne 1978a; Nilssen 1984; Nordlinger 1856: 18; Nunberg 1929c: 123; Nuorteva 1956c: 22, 28, 1968a, 1970; Nusslin 1898: 282, 1906b: 14, 1913: 269, 1927: 336; Perris 1856a: 244; Petrenko 1966; Pfeffer 1941b: 1, 1941c: 7, 1989a: 78; Postner 1974: 449; Ratzeburg 1837: 155, 1839: 189; Rhumbler 1922: 311, 1927: 325; Rimski-Korsakov et al. 1949: 288; Rozhkov 1970: 156; Rudnev 1926: 32–69, 1955: 372; Saalas 1913a: 68, 91, 1949: 344, 396, 1951: 14; Schedl 1981b: 87; Schimitschek 1955a: 83, 89; Schwerdtfeger 1944a: 176, 1957a: 183, 1981: 189; Sedlaczek 1935a: 163; Spessivtsev 1913a: 83; Stark 1952: 414; Tschorbadijev 1929: 176; Wachtl 1901: 381; Wichmann 1927b: 352; Zinovjev 1958: 385. (ds) Allan 1989; Allen, A. 1951b: 115; Ammann & Knabl 1923; Andersch 1851; Anonymous 1978w, 1979p, 1980g; Atkinson 1921; Andras & Schaefer 1957; Balazy & Michalski 1960; Barthe 1896; Bejer-Petersen & Jorum 1977: 31; Belousov 1916; Bickhardt 1916; Bielz 1887; Borchert 1951; Brakman 1966b: 207; Brancsik 1906; Bucking 1932; Budkov 1897; Bukowsky 1930; Buresh & Lazarov 1956; Butovitsch 1963; Ceconi 1897; Champion 1894; Charvat 1950; Cho 1957; Choo 1983: 91; Choo & Woo 1985: 165; Choo, Woo, & Park 1988; Chorbadzhevo 1929; Debatisse 1945; Donisthorpe 1933b: 105; Duprez 1938a; Eder 1934; Eggers 1904, 1906; Endrozi 1958b; Escalera 1919; Escherich 1923b: 487, 543, 1932b; Esterberg 1928, 1959; Everts 1922: 646, 1925; Eyquem 1891; Fleischer et al. 1923; Fogel & Guilleanne 1945; Forster 1849: 439; Fuchs 1904a, 1905a;

- Gaubil 1849: 126; Gemminger & Harold 1872: 2691; Gornostaev 1917: 308–315; Gozis 1875: 80; Grill 1895: 311; Grouzelle 1905; Grune 1979: 145; Gyllenhal 1827: 620; Hagedorn 1903a, 1910d: 59; Hansen, V. 1939, 1956, 1964: 465; Heinemann 1908a; Hellen 1947; Hennig 1954: 263; Henschel 1895a: 186; Heyden 1879: 140, 1881: 177; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 712; Hoffmann 1936: 41–42; Horion 1951; Jamnicky 1960a; Jazentkovsky 1912: 291; Joly 1976; Judeich & Nitsche 1895: 500; Kadyrov 1958: 43, 1989; Kaltenbach 1874: 685; Karpinski 1925: 217, 1926: 83, 1931: 36, 1933b: 38, 1948b: 231; Karpinski & Strawinski 1948: 157; Kaszab 1977: 67; Keler 1925b: 274; Kersten 1933: 76; Kiefer et al. 1942: 529; Klefbeck & Sjoberg 1960: 232; Kleine 1912a: 262, 268, 1913a: 35, 1913b: 128, 1914b: 249, 1934a: 151; Kloft & Hinks 1945: 218; Knotek 1898b: 332; Ko 1969: 280; Koltze 1901: 153; Koschitzky 1900: 83; Kostenko 1929; Kozikovsky 1921: 181; Krivolutskaya 1956: 836, 1960, 1965: 241, 1973: 142, 1983; Kurenzov 1934a: 58, 1935a: 44, 1936a: 114, 1936b: 357, 1967; Kurir 1947: 7; Langhoffer 1915c: 158; Leclercq 1971; Lentz 1857: 139; Lindberg & Saris 1952: 59; Lomnicki 1886a: 243, 1913b: 148; Lovendal 1890c: 211; Lucht 1987: 279; Lomardoni & Leonardi 1889: 473; Lundberg 1974: 92; Mandl 1931: 25; Marcu 1926c: 67; Matthews & Fowler 1883: 42; Mequignon 1936: 54; Michalski 1957: 169; Munster 1928: 291; Murayama 1937b: 572, 1948: 3, 1949a: 13, 1951c: 4, 1954b: 171; Negru 1966b: 404, 1968a: 457; Nobuchi 1966d: 38, 1974: 47; Nunberg 1928b: 88, 119, 1954: 81; Nuorteva 1971: 68; Nusslin 1898: 282; Orest 1926c: 67; Pacher 1965: 152; Palm 1946: 122, 1955c: 45; Palmen 1944: 60, 1946: 195; Parfentev 1951: 429, 433; Pfeffer 1925b: 6, 1931b: 74, 1935: 158, 1947e: 4, 1954: 277, 1989a: 78; Platinoff 1940: 11, 1942: 64, 1943: 141; Plaza & Gil 1982: 243; Pomerantzev 1907b: 494; Postner 1974: 449; Rapp 1934: 732; Ratzeburg 1837: 155, 1839: 189; Reitter 1916: 305; Rimski-Korsakov et al. 1949: 288; Rosenhauer 1856: 302; Rouhal 1941: 273; Rozhkov 1970: 156; Saalas 1913a: 68, 91, 1917a: 18, 1931: 70; Sainte-Claire & Mequignon 1938: 448; Schaschl 1854: 133; Schaufuss 1915: 1250; Schaum 1859: 96, 1862: 101; Schedl 1952f: 87, 1969a: 205, 1980a: 27, 1981b: 87; Schilsky 1909: 188; Schiodte 1873: 102; Schwerdtfeger 1981: 189; Shiraki 1952; Sokanovskii 1960; Stark 1926b: 105, 1926j: 127, 1927b: 90, 1928b: 630–636, 1931a: 28, 1931d: 552, 1952: 414; Stein 1868: 114; Stein & Weise 1877: 165; Stierlin 1898: 445; Strand 1946: 604; Sturm 1826: 102, 1843: 230; Tredl 1907: 16; Tschorbadjiev 1929: 176; Wanka 1915: 213; Wegelius 1960: 107; Westhoff 1882: 239; Wichmann 1927a: 79; Winter, T. G. 1983: 16; Yanovskii 1974, 1977a, 1989: 64; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 411; Yin, Huang, & Li 1984: 140; Zetterstedt 1840: 193; Zinovjev 1955: 187, (tx) Bach 1854; Balachowsky 1949a: 272; Barbey 1901: 24, 92; Beffa 1961; Charvat 1950; Choo 1983: 91; Dombrowsky 1887, 1892; Duffy 1953; Egger 1962; Eggers 1929c: 42, 1932c: 34–35; Eichhoff 1864b: 42, 1877b: 118, 1877c: 388, 1878b: 270, 1881a: 51, 242, 1883a: 113, 138; Endrodi 1957b; Escherich 1923b: 487, 543; Everts 1903: 764, 1922: 646; Fauvel 1889; Fleischer 1927; Formanek 1907: 43; Fuchs 1911a; Gabler 1955; Gebein 1907: 197; Grune 1979: 144, 145; Gyllenhal 1827: 620, 622; Hagedorn 1910a: 105; Hansen, V. 1956, 1964: 465; Henschel 1895a: 186; Hoffmann 1936; Iablokoff-Klmzorian 1961: 105; Joly 1976; Judeich & Nitsche 1895: 580; Karpinski & Strawinski 1948: 157; Koch 1913: 108, 123, 1928: 86, 1932: 128, 132; Krivolutskaya 1956: 836–839, 1958: 183; Kulmt 1913: 1058; Kurenzov 1941a: 214–216, 1948b: 104; Letzner 1891: 376; Lovendal 1889b: 59, 1890c: 211, 1898: 160; Lucht 1987: 279; Lomardoni & Leonardi 1889: 473; Murayama 1937b: 372, 1954b: 171, 1960: 53; Negru 1966b: 404; Nobuchi 1966d: 38, pl. 6, 1974: 47, pl. 1, 3; Nordlinger 1848: 235, 1856: 18; Nunberg 1926: 51, 1929c: 123, 1954: 81; Pfeffer 1932b: 27, 1941b: 1, 1941c: 7, 1947c: 4, 1955a: 260; Pjatnitskii 1930b: 179; Plaza & Gil 1982: 243; Portevin 1935: 338; Postner 1974: 449; Ratzeburg 1837: 155, 1839: 189; Redtenbacher 1849a: 363, 1849b: 27; Reitter 1913a: 108, 110, 1916: 350; Rey 1892b: 30; Rhumbler 1922: 311, 1927: 325; Saalas 1913a: 68, 91, 1914: 304–306, 1916: 110–116, 1919, 1949: 344, 396; Sahlberg 1836: 147; Schedl 1934f: 1645, 1946a: 6, 1952f: 87, 1980a: 27, 1981b: 87; Scherb 1971; Schimitschek 1937c: 59, 1955c: 92; Sokanovskii 1960: 677; Spessivtsev 1913a: 83–84, 1922a: 484, 1925a: 191, 1925b: 21, 1926a: 218, 1931: 80–81; Stark 1952: 414; Stierlin 1898: 445; Teplouchow 1890: 263; Wachtl 1894: 8; Weber, L. 1912: 30; Yin, Huang, & Li 1984: 140; Zetterstedt 1840: 193, (ms) Escherich 1932b; Gotz 1877; Hartig 1834: 108; Heinemann 1908a; Kozikovsky 1929: 254; Sedlaczek 1913: 455; Weber, L. 1912: 30. *nigritus* Gyllenhal 1827: 623 (*Bostrichus*). Synonyms: sex?, Europa; Gyllenhal Collection. Synonymy: Hagedorn 1910d: 59, Balachowsky 1949a: 272.
- References: (cn) Elfving 1904. (hb) Dombrowsky 1892; Elfving 1904; Wachtl 1876a: 455. (ds) Andersch 1851; Atkinson 1921; Blanchere & Robert 1889; Brancsik 1871; Ericson & Sandin 1893; Fowler 1891; Fuss 1874; Gemminger & Harold 1872: 2691; Gredler 1866: 374; Hallett 1923b; Heyden 1876: 300; Kraatz 1869: 59; Leder 1871: 131; Lentz 1857: 139; Lindemann 1884b: 264; Miller 1868: 27; Poppius 1900: 108; Rye 1874: 205; Sahlberg 1900: 105; Schaum 1859: 96, 1862: 101; Schilsky 1909: 188; Schiodte 1873: 102; Seidlitz 1872: 396, 1891a: 566, 1891b: 612; Sharp 1870: 256;

- Sharp & Fowler 1893: 35; Siebke 1875: 284; Stein 1868: 114; Stein & Weise 1877: 165; Sturm 1843: 230; Thomson 1865: 364, 1868: 222; Wachtl 1876a: 455. **(tx)** Balachowsky 1949a: 272; Bertolini 1872; Brancsik 1871; Dombrowsky 1892; Ferrari 1867: 43; Gyllenhal 1827: 623; Letzner 1891: 376; Sahlberg 1836: 147; Seidlitz 1872: 396, 1891a: 566, 1891b: 612; Thomson 1865: 364, 1868: 222. **(ms)** Hartig 1834: 108.
- tosaensis (Murayama)** 1950a: 52 (*Ips*). Syntypes, sex?; Irinohama, Okata-mura, Hata-gun; Murayama Collection in USNM, Washington. Figures: Nobuchi 1966d: pl. 5, 1974: pl. 1, 3. Distribution: Asia (Japan/ Korea). Hosts: *Pinus densiflora*, *P. thunbergii*. References: **(cn)** Murayama 1954a: 9; Oda, Kato, & Nobuchi 1964. **(hb)** Nagawasa et al. 1968. **(ds)** Ko 1969: 279; Murayama 1949a: 13, 1951c: 4, 1952a: 20, 1953: 34, 1954a: 9, 1954b: 171, 1955: 102–103; Nobuchi 1966d: 36, 1974: 48. **(tx)** Murayama 1950a: 53, 1952a: 20, 1954b: 171, 1955: 102; Nobuchi 1959b: 14, 1966d: 36, pl. 5, 1974: 48, pl. 1, 3.
- Genus *Acanthotomicus* Blandford
- ACANTHOTOMICUS BLANDFORD 1894d: 89. Type-species: *Acanthotomicus spinosus* Blandford, monobasic.
- Mimips* Eggers 1932c: 33. Type-species: *Ips pilosus* Eggers, original designation. Synonymy: Wood 1972c: 191. References: **(tx)** Eggers 1932c: 33; Schedl 1952g: 51, 1954b: 37, 1957e: 865–883, 1962j: 71, 1962k: 595–1352, 1965e: 349–379; Wood, S. L. 1972c: 191.
- Isophthorus* Schedl 1938a: 173. Type-species: *Isophthorus quadrituberculatus* Schedl, subsequent designation by Wood 1980: 89. Synonymy: Wood 1980: 89. References: **(tx)** Schedl 1938a: 160–166, 173; Wood, S. L. 1980c: 89.
- Keys: Wood 1982b: 664 for Central America. References: **(ay)** Nobuchi 1969a: 66. **(hb)** Wood, S. L. 1986a: 70. **(ds)** Schedl 1966b: 42; Wood, S. L. 1986a: 70. **(tx)** Blandford 1894d: 89; Browne 1963: 54; Nobuchi 1974: 53; Wood, S. L. 1972c: 191, 1982b: 664–667, 1986: 70.
- acuminatus (Schedl)** 1962j: 71 (*Mimips*). Holotype, sex?; Ghana, Kumasi; BMNH, London. Distribution: Africa (Ghana). Hosts: *Albizia gummifera*. References: **(ds)** Schedl 1962l: 59, 1962j: 71, 1966c: 225, 1972e: 282. **(tx)** Browne 1970: 559; Eggers 1932c: 33; Schedl 1962j: 71, 1962k: 1086, 1979c: 11.
- africanus (Browne)** 1970: 560 (*Orthotomicus*). Holotype ♀; Nigeria: Mambilla Plateau, Gyel Nyaki at 5000 ft.; BMNH, London. Figures: Browne 1970: 561. Distribution: Africa (Nigeria). References: **(tx)** Browne 1970: 560–561.
- alternans (Schedl)** 1974c: 262 (*Ips*). Holotype ♂?; Nord-Vietnam; Muzeul de Istorie Naturala, Bucharest. Distribution: Asia (Vietnam). References: **(tx)** Schedl 1974c: 262, 1979c: 17.
- amatus Schedl** 1954c: 156. Holotype, sex?; Borneo; Eggers Collection, in NHMW, Wien. Distribution: Indonesia (Borneo). References: **(tx)** Schedl 1954c: 156, 1979c: 26.
- analogus (Wood)** 1971: 40 (*Mimips*). Holotype ♂; 40 km E Canton, Barinas, Venezuela; Wood Collection. Figures: Wood, S. L. 1971: 40 (male declivity). Distribution: South America (Venezuela). Hosts: *Spondias mombin*. References: **(hb)** Wood, S. L. 1971: 40. **(tx)** Wood, S. L. 1971: 40, 1982b: 666.
- angolensis (Schedl)** 1962k: 1086 (*Mimips*). Holotype, sex?; Angola; Schedl Collection in NHMW, Wien. Distribution: Africa (Angola). References: **(tx)** Schedl 1962k: 1086, 1979c: 20.
- angulatus (Schedl)** 1962k: 1087 (*Mimips*). Holotype, sex?; Kamerun; Schedl Collection in NHMW, Wien. Distribution: Africa (Cameroon). References: **(tx)** Eggers 1941c: 143; Schedl 1962k: 1087, 1967e: 214, 1979c: 20.
- angylocalyx (Schedl)** 1957d: 75 (*Mimips*). Holotype ♂; Congo Belge: Yangambi; MRCB, Tervuren. Figures: Schedl 1962j: 72. Distribution: Africa (Zaire). Hosts: *Angylocalyx pyraertii*. References: **(ec)** Schedl 1958d: 187, 190, 1962j: 72. **(hb)** Schedl 1962j: 72. **(ds)** Schedl 1962j: 72, 1967e: 214. **(tx)** Schedl 1957d: 75, 1957e: 877, 1962j: 72.
- apicalis (Schedl)** 1977f: 501 (*Ips*). Holotype ♀?; Sumatra: Bandar Baroe; Schedl Collection in NHMW, Wien. Distribution: Indonesia (Sumatra). References: **(tx)** Schedl 1977f: 501.
- artocarpi (Browne)** 1955: 347 (*Ips*). Holotype ♂; Malay Peninsula: Kelantan, Jeram; BMNH, London. Distribution: Asia (Malaysia). Hosts: *Artocarpus elasticus*. Notes: (1) Browne 1963c: 54 (to *Acanthotomicus*). References: **(hb)** Browne 1961c: 82. **(ds)** Browne 1955: 347, 1961c: 82, 1963c: 54. **(tx)** Browne 1955: 347.
- ashantius (Schedl)** 1977d: 284 (*Mimips*). Holotype, sex?; Ghana: Ashanti Region, Kwadaso, 259 m, N 6 degrees 42', W 1 degree 39'; NIIMB, Budapest.

- Distribution: Africa (Ghana).
References: (tx) Schedl 1977d: 284.
- australis** (Schedl) 1972a: 147 (*Ips*). Holotype ♂; Queensland, Imbil; Queensland Museum, Brisbane.
Distribution: Australia (Queensland).
Hosts: *Ficus macrophylla*.
References: (tx) Schedl 1972a: 147, 1979c: 31.
- bicaudatus** (Eggers) 1927c: 80 (*Ips*). Lectotype ♂; Philippines: Basilan; USNM, Washington, designated by Anderson & Anderson 1971: 6.
Distribution: Philippine Islands.
Hosts: Apitong log.
References: (ds) Schedl 1938g: 425–426, 1966b: 42, 1966g: 30. (tx) Anderson, W. H. & Anderson 1971: 6; Eggers 1927c: 80; Schedl 1962c: 192, 1979c: 37.
- biconicus** (Schedl) 1938h: 460 (*Myeloborus*). Holotype ♂; Congo; Schedl Collection in NHMW, Wien.
Figures: Nunberg 1961a: 341, 345.
Distribution: Africa (Angola/ Equatorial Guinea/ Ghana/ Ivory Coast/ Nigeria/ Uganda/ Zaïre).
Hosts: *Albizia gummifera*, *Millettia* spp., *Motandra guineensis*.
Notes: (3) Schedl 1957d: 74 (described female), 1938a: 173 (treated in *Myeloborus*), 1959p: 18 (treated in *Isophthorus*).
References: (cc) Schedl 1962j: 74. (lb) Schedl 1962j: 74. (ds) Ferreira 1965: 1118; Roberts 1969: 125; Schedl 1959p: 18, 1962h: 59, 1962j: 74, 1964e: 68, 1966c: 225, 1967e: 214, 1972e: 280, 1975h: 351, 1977d: 278, 1982: 281. (tx) Schedl 1938a: 173, 1938h: 460, 1957d: 15, 74, 1959p: 18, 1961m: 86, 1962j: 74, 1962k: 1088, 1962r: 97, 1979c: 39.
- confusus** Eggers 1941d: 179 (*Mimips*). Holotype, sex?; Fernando Poo (Spanish-Guinea); IPKE, Eberswalde. Synonymy: Schedl 1961m: 86.
References: (tx) Eggers 1941d: 179; Schedl 1961m: 86, 1962j: 74.
- cavifrons** Nunberg 1961: 342 (*Mimips*). Holotype ♂; Tshuapa: Bamanian; MRCB, Tervuren. Synonymy: Schedl 1962r: 97.
References: (hb) Roberts 1969: 125. (tx) Browne 1963b: 245; Nunberg 1961a: 341–342, 345; Schedl 1962k: 1088, 1962r: 97.
- bidens** (Schedl) 1967g: 229 (*Mimips*). Holotype ♂; Sibiti IRHO rain forest; NHMB, Budapest.
Distribution: Africa (Zaire).
References: (tx) Schedl 1967g: 229, 1979c: 39.
- bidentatus** (Schedl) 1957e: 876 (*Mimips*). Holotype, sex?; Kenya: Mukutano; BMNH, London.
Distribution: Africa (Kenya).
Hosts: *Rhus* sp.
References: (ds) Schedl 1962j: 77. (tx) Schedl 1957e: 876, 1962j: 77, 1979c: 39.
- bidentis** Wood 1972e: 191. Holotype ♂; 8 km S Colonia (near Buenaventura), Valle de Cauca, Colombia; Wood Collection, automatic.
Figures: Wood 1971: 41 (male declivity).
Distribution: South America (Colombia).
Hosts: *Icica altissima*.
References: (tx) McNamara 1977: 196; Wood, S. L. 1972e: 191.
- bidens** Wood 1971: 41 (*Mimips*). Holotype ♂; 8 km S Colonia (near Buenaventura), Valle de Cauca, Colombia; Wood Collection, preoccupied by Schedl 1967.
References: (tx) Wood, S. L. 1971: 41, 1972e: 191.
- bispinosus** (Eggers) 1927c: 78 (*Ips*). Lectotype ♂; Philippines: Mindoro, Mangarin; USNM, Washington, designated by Anderson & Anderson 1971: 6.
Distribution: Philippine Islands (Mindoro).
References: (ds) Schedl 1966b: 42. (tx) Anderson, W. H. & Anderson 1971: 6; Eggers 1927c: 78; Schedl 1955b: 295, 1979c: 41.
- bolivianus** (Eggers) 1943a: 357 (*Isophthorus*). Holotype, sex?; Bolivia (Cochabamba); Eggers Collection, in NHMW, Wien.
Distribution: South America (Bolivia).
References: (tx) Eggers 1943a: 357, 1979c: 43.
- borneensis** Schedl 1964g: 245. Holotype, sex?; Borneo; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Borneo).
References: (tx) Schedl 1964g: 245, 1979c: 43.
- brasilensis** (Schedl) 1976a: 72 (*Mimips*). Holotype, sex?; Ter. Ampara, Rio Felicio; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 72.
- caelatus** (Schedl) 1964f: 620 (*Mimips*). Holotype, sex?; Cameroun: N'Kongsamba; MNHN, Paris.
Distribution: Africa (Cameroun).
Hosts: *Canarium sluiceinfurthii*.
References: (ds) Menier 1973a; Schedl 1966c: 225, 1967e: 214. (tx) Schedl 1964f: 620, 1979c: 49.
- camerunus** (Eggers) 1944b: 95 (*Mimips*). Holotype ♂; Kamerun, Misselle am Kamerunberg; Hamburg Museum, lost.
Distribution: Africa (Cameroun).
References: (tx) Eggers 1944b: 95; Schedl 1962j: 77.
- caudatulus** (Schedl) 1962b: 192 (*Ips*). Holotype ♂; Indochina: Reg. de Hoa-Benh; MNHN, Paris.
Distribution: Asia (Vietnam).
References: (ds) Schedl 1962b: 192, 1974c: 262, 1979c: 54.
- caudatus** (Browne) 1970: 559 (*Mimips*). Holotype ♂; Rhodesia: Matopo Hills, Maleme Dam; BMNH, London.
Distribution: Africa (Zimbabwe).
References: (tx) Browne 1970: 559.

- celtis** (Schedl) 1955b: 295 (*Ips*). Holotype, sex?; Neu Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1955b: 280, 295, 1979c: 55.
- chiriquensis** (Blandford) 1898b: 189 (*Xylocleptes*). Lectotype ♂; Volcan de Chiriqui, Panama; BMNH, London, designated by Wood 1966b: 24.
Distribution: North America (Panama).
Notes: (1) Wood 1982b: 667 (to *Acanthotomicus*).
References: (ds) Hagedorn 1910d: 62; Kleine 1913b: 132, 362; Wood, S. L. 1982b: 667. (tx) Blandford 1898b: 189; Hagedorn 1910a: 107; Wood, S. L. 1966b: 24, 1982b: 667.
- ciliatus** (Hagedorn) 1909a: 743 (*Pocillips*). Holotype, sex?; Deutsch-Ostafrika, Amani; Hamburg Museum, lost.
Distribution: Africa (Tanzania).
Notes: (1) Eggers 1932c: 33 (to *Mimips*, = *Acanthotomicus*).
References: (ds) Hagedorn 1910d: 77; Kleine 1913b: 145, 1914b: 322. (tx) Eggers 1932c: 33; Hagedorn 1909a: 743–744, 1910a: 112; Schedl 1962j: 78.
- congonus** (Eggers) 1932c: 33 (*Mimips*). Holotype ♀; Congostaat (Haut-Uele: Yebo-Tara); MRCB, Tervuren.
Distribution: Africa (Tanzania/ Zaire).
References: (ec) Vitzthum 1923: 181. (ds) Hagedorn 1910d: 77. (tx) Eggers 1932c: 33; Hagedorn 1910a: 112; Schedl 1948c: 664, 1962j: 78.
- congruens** (Schedl) 1962k: 1089 (*Mimips*). Holotype ♀; Congo: Rutshuru-Falls; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: Liana.
References: (tx) Schedl 1962k: 1089, 1979c: 63.
- conjunctus** (Schedl) 1962l: 70 (*Mimips*). Holotype, sex?; Ghana, Kumasi; BMNH, London.
Distribution: Africa (Ghana).
References: (ds) Schedl 1962h: 59. (tx) Schedl 1962h: 70, 1962j: 78–79, 1962k: 1090, 1979c: 63.
- craterigerus** (Nunberg) 1961: 621 (*Orthotomicus*). Holotype ♂; New Ireland, Namatamai; BMNH, London.
Figures: Nunberg 1961b: 631.
Distribution: New Ireland Island.
Notes: (1) Browne 1970: 560 (to *Acanthotomicus*).
References: (tx) Browne 1970: 560; Nunberg 1961b: 621, 631; Schedl 1962n: 699.
- curvidens** (Schedl) 1955f: 258, 262 (*Brachyden-drusus*). Holotype, sex?; Ruanda: Terr. Astrida, Rutovu, gite d'etape dans la forêt du Rugege, Forêt de montagne ombrophile; MRCB, Tervuren.
Distribution: Africa (Ruanda/ Zaire).
Hosts: *Hagenia* sp., *Podocarpus* sp.
- References: (ds) Schedl 1962j: 79. (tx) Schedl 1955f: 258, 262, 1962j: 79, 1979c: 72.
- dentatus** Schedl 1954a: 149. Holotype ♀; apparently Java: Dapok; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java).
References: (tx) Schedl 1954a: 144, 149, 1979c: 77.
- denticulus** (Eggers) 1923: 163 (*Ips*). Lectotype, sex?; Neu Guinea; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 78.
Distribution: New Guinea.
References: (tx) Eggers 1923: 163; Schedl 1979c: 78.
- duplicatus** (Schedl) 1973d: 170 (*Mimips*). Holotype ♂; Brasilien: Mato Grosso, Utiriti, 325 m, Rio Papagaio; MZUSP, Sao Paulo.
Distribution: South America (Brazil).
References: (tx) Schedl 1973d: 170, 1979c: 85.
- elongatus** (Schedl) 1961m: 86 (*Mimips*). Holotype, sex?; Cote d'Ivoire, forêt du Banco; MNHN, Paris.
Distribution: Africa (Ghana/ Ivory Coast).
Hosts: *Canarium schweinfurthii*.
References: (ds) Schedl 1964e: 68, 1972e: 282. (tx) Schedl 1961m: 86, 1962j: 79, 1979c: 89.
- emarginatus** Browne 1985a: 191. Holotype ♂; Bonyosmiaf (Halmahera), Moluccas to Nagoya (Japan), imported; Schedl Collection in NHMW, Wien.
Distribution: Moluccas Islands.
Hosts: *Anisoptera* sp.
References: (ds) Ohno, Yoneyama, & Narazawa 1987: 93. (tx) Browne 1985a: 191.
- euphorbiae** (Schedl) 1957d: 76 (*Mimips*). Holotype, sex?; Ruanda: Kisenyi; MRCB, Tervuren.
Distribution: Africa (Ruanda/ Uganda/ Zaire).
Hosts: *Cassia* sp., *Euphorbia tirucalli*.
References: (ds) Gardner 1957a; Schedl 1962h: 59, 1962j: 80, 1962k: 1090, 1967e: 215. (tx) Schedl 1955i: 212, 1957d: 76, 1962j: 80, 1970i: 223, 1979c: 92.
- atratus** Browne 1965: 197 (*Mimips*). Holotype ♂; Uganda: Zika; BMNH, London. Synonymy: Schedl 1970i: 223.
References: (tx) Browne 1965: 197; Schedl 1970i: 223.
- excavatus** (Schedl) 1962k: 1090 (*Mimips*). Holotype ♂; Congo: Kivu; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
References: (tx) Schedl 1962k: 1090, 1979c: 93.
- eximius** (Schedl) 1955b: 296 (*Ips*). Holotype, sex?; Neu-Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1955b: 280, 296, 1979c: 94.
- fallaciosus** (Schedl) 1962k: 1091 (*Mimips*). Holotype ♀; Cote d'Ivoire: Forêt du Banco; MNHN, Paris.

Distribution: Africa (Ivory Coast).

References: **(ds)** Schedl 1962k: 1091, 1964e: 68.
(tx) Schedl 1962k: 1091, 1979c: 95.

fici **Browne** 1984: 154. Holotype, sex?; Amazon (Papua New Guinea) to Nagoya [Japan], imported; BMNH, London.

Distribution: New Guinea.

Hosts: *Ficus* sp.

References: **(ds)** Ohno et al. 1989: 60. **(tx)** Browne 1984: 154.

fortis **(Wood)** 1971: 40 (*Mimips*). Holotype ♂; Finca Taboga, 15 km SW Canas, Guanacaste, Costa Rica; Wood Collection.

Figures: Wood 1971: 40.

Distribution: North America (Costa Rica/Panama).

Hosts: *Spondias mombin*.

References: **(hb)** Wood, S. L. 1982b: 666. **(ds)** Wood, S. L. 1982b: 666. **(tx)** Wood, S. L. 1971: 40, 1982b: 666.

gracilis **(Schedl)** 1966c: 236 (*Mimips*). Holotype, sex?; Republique du Congo; MNHN, Paris.

Distribution: Africa (Zaire).

References: **(tx)** Schedl 1966c: 236, 1979c: 108.

grandis **Browne** 1986c: 664. Holotype ♂; New Guinea; Amazon to Nagoya (Japan), imported; BMNH, London.

Distribution: New Guinea.

Hosts: *Ficus* sp. log.

References: **(tx)** Browne 1986c: 664.

granulatus **(Ferrari)** 1867a: 40 (*Xylocleptes*). Lectotype ♂; Venezuela, Moritz [presumably Colonia Tovar]; NHMW, Wien, designated by Wood 1974d: 277.

Figures: Wood 1971: 42.

Distribution: South America (Venezuela).

Hosts: Liana.

References: **(ds)** Gemminger & Harold 1872: 2693; Hagedorn 1910d: 62; Kleine 1913b: 132, 1914b: 339. **(tx)** Ferrari 1867a: 40; Hagedorn 1910a: 107; Wood, S. L. 1974d: 277.

uncinatus **Wood** 1971: 41 (*Mimips*). Holotype ♂; Colonia Tovar, Aragua, Venezuela; Wood Collection. Synonymy: Wood 1974d: 277.

References: **(tx)** Wood, S. L. 1971: 41–42, 1974d: 277.

harongae **(Schedl)** 1954d: 882 (*Ips*). Syntypes ♂ ♀; Cote d'Ivoire, Adiopodoume; MNHN, Paris and Schedl Collection in NHMW, Wien.

Distribution: Africa (Ghana/Ivory Coast).

Hosts: *Haronga paniculata*.

Notes: (1) Schedl 1962j: 80 (to *Mimips*, = *Acanthotomicus*).

References: **(ds)** Schedl 1962j: 80, 1966c: 226, 1967e: 215, 1972e: 282. **(tx)** Schedl 1954d: 871, 882, 1957b: 157, 1962j: 80, 1979c: 115.

immunitis **(Browne)** 1965: 200 (*Mimips*). Holotype, sex?; Ivory Coast: Adiopodoume; BMNH, London.

Distribution: Africa (Ivory Coast).

References: **(tx)** Browne 1965: 200.

inclinans **(Schedl)** 1972h: 51 (*Ips*). Holotype ♂; New Guinea (NW), Bodem, 100 m, 11 km SE Oerberfaren; BPBM, Honolulu.

Distribution: New Guinea.

References: **(tx)** Schedl 1972h: 51, 1979c: 123.

insularis **(Eggers)** 1923: 164 (*Ips*). Lectotype ♂; Key Inseln; USNM, Washington, designated by Anderson & Anderson 1971: 15.

Distribution: Indonesia (Key Island).

References: **(tx)** Anderson, W. H. & Anderson 1971: 15; Eggers 1923: 164, 1927c: 78; Schedl 1979c: 125.

ipsiformus **Wood** 1985: 270. Holotype ♂; Santa Rosa National Park, Guanacaste, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Spondias mombin*.

References: **(tx)** Wood, S. L. 1985: 270.

katangensis **(Eggers)** 1932c: 34 (*Mimips*). Holotype ♀; Congostaat (Katanga; Lubombo); MRCB, Tervuren.

Distribution: Africa (Tanzania/ Uganda/ Zaire).

Hosts: Liana.

References: **(hb)** Schedl 1962j: 81. **(ds)** Nunberg 1961a: 332; Schedl 1962h: 59, 1962j: 81, 1962k: 1092. **(tx)** Eggers 1932c: 34; Schedl 1962j: 81, 1962k: 1092, 1979c: 131.

kelantanensis **(Browne)** 1955: 345 (*Ips*). Holotype ♂; Malay Peninsula: Kelantan, Pulau Chondong; BMNH, London.

Distribution: Asia (Malaya).

References: **(ds)** Browne 1955: 345, 1961c: 82.

kepongi **(Schedl)** 1942a: 181 (*Ips*). Holotype, sex?; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien.

Distribution: Asia (Malaya/ Vietnam).

Hosts: *Artocarpus kunstleri*, *Ficus* sp.

References: **(ds)** Browne 1961c: 82; Schedl 1969a: 206. **(tx)** Schedl 1942a: 181, 1979c: 132.

kivuensis **(Schedl)** 1957d: 74 (*Mimips*). Holotype ♂; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Haronga paniculata*.

References: **(cc)** Schedl 1962j: 82. **(hb)** Schedl 1962j: 82. **(ds)** Schedl 1962j: 82. **(tx)** Schedl 1957d: 74, 1962j: 82.

leferrei **(Browne)** 1973: 292 (*Mimips*). Holotype ♂; Zaire: Mweka; MRCB, Tervuren.

Distribution: Africa (Zaire).

References: **(tx)** Browne 1973: 292.

- lepidus** (Wichmann) 1914c: 138 (*Pityogenes*). Holotype ♂; Dimbroko, Cote d'Ivoire; NHMW, Wien.
Distribution: Africa (Ivory Coast).
Notes: (1) Schedl 1954: 871 (to *Mimips*, =*Acanthotomicus*).
References: (ds) Kleine 1914b: 309. (tx) Schedl 1954d: 871, 1957d: 15, 1962j: 84; Wichmann 1914c: 138.
- major** (Schedl) 1964f: 621 (*Mimips*). Holotype ♀; Cameroun, N'Kongsamba; MNHN, Paris.
Distribution: Africa (Cameroon).
References: (tx) Schedl 1964f: 621, 1979c: 146.
- medius** (Eggers) 1943e: 75 (*Mimips*). Holotype ♂; Mozambique (Canixixe); MNHN, Paris.
Distribution: Africa (Kenya/ Mozambique/ South Africa/ Tanzania/ Zaire).
References: (ds) Browne 1975a: 758; Nunberg 1961a: 332; Schedl 1962j: 85, 1962k: 1092, 1965e: 353, 1977c: 394. (tx) Eggers 1943e: 75, 1944b: 93; Schedl 1948c: 664, 1950d: 8, 1962j: 85, 1962k: 1092, 1964j: 47, 1979c: 150.
- mimicus** (Schedl) 1961i: 227 (*Mimips*). Holotype ♂; Costa Rica: Turrialba; Schedl Collection in NHMW, Wien.
Figures: Bright 1972d: 59, Wood 1971: 39.
Distribution: Antilles Islands (Dominican Republic in Hispanola/ Jamaica), North America (Costa Rica/ Veracruz in Mexico/ Panama), South America (Brazil/ Venezuela).
Hosts: *Spondias mombin*.
References: (hb) Wood, S. L. 1982b: 665. (ds) Bright 1972d: 69, 1981c: 152, 1985c: 173; Browne 1970: 541; Estrada & Atkinson 1988: 206; Schedl 1960d: 75; Wood, S. L. 1982b: 665. (tx) Bright 1972d: 59, 69, 1985c: 173; Browne 1970: 541; Schedl 1961i: 227; Wood, S. L. 1971: 39, 1979c: 153, 1982b: 665.
- octodentatus** Browne 1984: 153. Holotype ♂; Niah (Sarawak) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Borneo).
Hosts: Medang log.
References: (tx) Browne 1984: 153.
- octospinosus** (Schedl) 1957c: 877 (*Mimips*). Holotype ♂; Tanganyika: Gologolo; BMNH, London.
Distribution: Africa (Tanzania).
Hosts: *Cussonia* sp.
References: (ds) Schedl 1962j: 85. (tx) Schedl 1957c: 877, 1962j: 85, 1979c: 177.
- ocularis** (Wood) 1971: 42 (*Mimips*). Holotype ♂; 8 km S Colonia (near Buenaventura), Valle de Cauca, Colombia; Wood Collection.
Figures: Wood 1971: 42.
Distribution: South America (Colombia).
Hosts: *Icica altissima*.
References: (tx) Wood, S. L. 1971: 42.
- ouerosus** (Schedl) 1942a: 180 (*Ips*). Lectotype ♀; Malaya, Selangor; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 178.
Distribution: Asia (Malaya).
Hosts: *Alatonia spathulata*.
References: (hb) Browne 1938a. (ds) Browne 1938a, 1949b. (tx) Browne 1949b; Schedl 1942a: 180, 1979c: 178.
- pachylobius** (Schedl) 1965e: 371 (*Mimips*). Holotype, sex?; Congo ex belge; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
Hosts: *Pachylobius pubescens* (= *Dacryodes buetneri*).
References: (tx) Schedl 1965e: 371, 1979c: 182.
- parcius** (Schedl) 1977f: 502 (*Ips*). Holotype sex?; Malaya: Kepong; Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya).
References: (tx) Schedl 1977f: 502.
- peregrinus** (Schedl) 1939c: 350 (*Ips*). Lectotype ♂; Malaya, Selangor: Sungei Buloh For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 189.
Distribution: Asia (Malaya/ Thailand).
Hosts: Burseraceae sp.
Notes: (3) Browne 1955: 346 (described male).
References: (hb) Browne 1938a. (ds) Browne 1938a, 1950g: 895, 1955: 345–346, 1961c: 82, 1986a: 89. (tx) Browne 1955: 345–346, 1961: 82–83, 1963: 54; Schedl 1939c: 350, 1979c: 189.
- perexiguus** (Blandford) 1896b: 201 (*Tomicus*). Syn-types 2, ♂ ♀; Damma I.; BMNH, London.
Distribution: Asia (Malaya/ Thailand/ Vietnam), Indonesia (Damma Island, Java, Sumatra), New Guinea, Philippine Islands.
Hosts: *Ficus religiosa*, *F. spp.*, *Ceiba pentandra*.
References: (hb) Kalshoven 1958b: 173. (ds) Beaver 1990a: 279; Beaver & Browne 1975: 287; Browne 1966: 245, 1980d: 491, 1984a: 151, 1984b: 286; Hagedorn 1910d: 56; Kalshoven 1968: 173; Kleine 1913b: 128, 1914b: 280; Ohno et al. 1989: 60; Schedl 1937f: 15, 1961c: 70, 1965a: 340, 1965g: 22, 1966b: 43, 1969a: 205. (tx) Blandford 1896b: 201; Eggers 1927c: 78; Hagedorn 1910a: 105; Schedl 1939c: 350, 1942a: 170, 1942d: 4, 1953b: 24, 1965g: 22.
- philippinensis** Eggers 1927c: 78 (*Ips*). Lectotype, sex?; Philippines: Mindanao, Provinz Lanao, Momungan; USNM, Washington, designated by Anderson & Anderson 1971: 25. Synonymy: Schedl 1942d: 4.
References: (tx) Anderson, W. H. & Anderson 1971: 25; Eggers 1927c: 78; Schedl 1939c: 350, 1942d: 4, 1979c: 192.
- pilosellus** (Browne) 1965: 197 (*Mimips*). Holotype ♂; Ivory Coast: Adiopodoume; RNH, Leiden.
Figures: Nunberg 1967b: 337–338.

- Distribution: Africa (Ghana/ Ivory Coast/ Uganda).
References: **(ds)** Numberg 1967b: 324. **(tx)** Browne 1965: 197; Numberg 1967b: 337, 338.
- pilosus (Eggers)** 1924: 106 (*Ips*). Syntypes 5, sex?; Elisabethville; 3 in MRCB, Tervuren, 2 in USNM, Washington, 1 in Schedl Collection in NHMW, Wien.
Distribution: Africa (Angola/ Mozambique/ South Africa/ Tanzania/ Zaïre/ Zambia), Madagascar.
Notes: (1) Eggers 1932c: 33 (to *Mimips*, =*Acanthotomicus*).
References: **(ds)** Beaver & Loytyniemi 1985a: 67; Ferreira 1965: 1118; Numberg 1961a: 332; Schedl 1959p: 18, 1962j: 86, 1962k: 1093. **(tx)** Eggers 1924: 106, 1927a: 198, 1932c: 33, 1943e: 75; Schedl 1948c: 664, 1950c: 204, 1950d: 8, 1952g: 51, 1959p: 18, 1962j: 86, 1962k: 1093, 1964j: 47, 1979c: 194.
- quadridens (Schedl)** 1962k: 1093 (*Mimips*). Holotype, sex?; Kamerun; Schedl Collection in NHMW, Wien.
Figures: Schedl 1961k: 678.
Distribution: Africa (Cameroon).
References: **(tx)** Schedl 1961k: 678, 1962k: 1093, 1979c: 208.
- quadrispinosus (Eggers)** 1919: 243 (*Xylocleptes*). Syntypes 2 ♀; Kamerun, Soppo 800 m und Buea 1000 m; MNB, Berlin.
Figures: Schedl 1961k: 678 (antenna).
Distribution: Africa (Cameroon).
Notes: (1) Eggers 1944b: 96 (to *Acanthotomicus*).
References: **(tx)** Eggers 1919: 243, 1944b: 96; Schedl 1961k: 678, 1962j: 86, 1962r: 95, 1964f: 620, 1979c: 208–209.
- quadrituberculatus (Schedl)** 1938a: 173 (*Isophthorus*). Holotype, sex?; Congo; Schedl Collection in NHMW, Wien.
Distribution: Africa (Angola/ Ghana/ Ivory Coast/ Mozambique/ Uganda/ Zaïre).
References: **(ds)** Ferreira 1965: 1118; Schedl 1959p: 18, 1961m: 84, 1962h: 59, 1962j: 87, 1962k: 1094, 1972e: 282. **(tx)** Schedl 1938a: 173–174, 1962j: 87, 1962k: 1094, 1979c: 209.
- fallax** Eggers 1943e: 76 (*Mimips*). Holotype ♀; Mozambique (Canxixe); MNHN, Paris. Synonymy: Wood 1989: 169.
References: **(tx)** Browne 1963: 246; Eggers 1943e: 76; Schedl 1962j: 87; Wood, S. L. 1989: 169.
- robertsi (Browne)** 1965: 198 (*Mimips*). Holotype, sex?; Nigeria: Oban; BMNH, London.
Distribution: Africa (Nigeria).
References: **(hb)** Roberts 1969: 126. **(tx)** Browne 1965: 198
- Distribution: Africa (Angola/ Cameroon/ Equatorial Guinea/ Kenya/ Nigeria/ Zaïre).
Hosts: *Albizia coriaria*, *Amphimas ferrugineus*, *Cleistopholis patens*, *Klainedoxa gabonensis*.
References: **(cn)** Mayne & Donis 1951: 332. **(ce)** Mayne & Donis 1951: 332. **(ds)** Browne 1973a: 280; Ferreira 1965: 1119; Mayne & Donis 1959: 332, 1962: 309; Menier 1973a; Schedl 1959p: 8, 18, 1962j: 87, 1964f: 618, 1965e: 35, 1967e: 215. **(tx)** Anderson, W. H. & Anderson 1971: 29; Eggers 1944b: 96; Schedl 1950d: 12, 27, 1962j: 87–88, 1979c: 227.
- sexspinosus (Schedl)** 1942a: 181 (*Ips*). Lectotype ♂; Malaya, Selangor, Buloh F. R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 227.
Distribution: Asia (Malaya).
Hosts: Burceraceae sp.
References: **(ds)** Browne 1961c: 83. **(tx)** Schedl 1942a: 181, 1979c: 227.
- seydeli (Schedl)** 1965e: 372 (*Mimips*). Holotype, sex?; Congo ex belge, Elisabethville; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
References: **(tx)** Schedl 1965e: 372, 1979c: 227.
- simplex (Schedl)** 1962k: 1094 (*Mimips*). Holotype, sex?; Kamerun; Schedl Collection in NHMW, Wien.
Distribution: Africa (Cameroon).
References: **(tx)** Schedl 1962k: 1094, 1979c: 230.
- sindorae Browne** 1981c: 600. Holotype ♂; Bangkumuang (Borneo) to Yokahama (Japan), imported; BMNH, London.
Distribution: Indonesia (Borneo).
Hosts: Sepetir log.
References: **(tx)** Browne 1981c: 600.
- spinidens (Schedl)** 1962k: 1095 (*Mimips*). Holotype, sex?; Kamerun; Schedl Collection in NHMW, Wien.
Distribution: Africa (Cameroon).
References: **(tx)** Schedl 1934f: 1645, 1962k: 1095, 1979c: 234.
- spinosus Blandford** 1894d: 90. Syntypes 2 ♂; Japan: Oyayama and Nikko; BMNH, London.
Figures: Nakane et al. 1963: pl. 192, Nobuchi 1974: pls. 2–3.
Distribution: Asia (Japan).
Hosts: *Quercus myrsinsefolia*.
References: **(cn)** Anonymous 1980g. **(ds)** Anonymous 1980g; Blandford 1894c: 579; Browne 1981a: 125; Hagedorn 1910d: 62; Kleine 1913b: 132, 1914b: 258; Murayama 1936a: 129, 1954b: 201, 1955: 99; Nakane et al. 1963: 383; Nobuchi 1974: 54. **(tx)** Blandford 1894d: 90–91; Hagedorn 1910a: 107; Hopkins 1914: 116; Lucas 1920: 69; Murayama 1934c: 299, 1936a: 129, 1939: 140, 1954b: 201, 1955: 99; Nakane et al. 1963: 383, pl. 192; Nobuchi 1959b: 14, 1974: 54, pl. 2–3; Strohmeyer 1908b: 70. **(ms)** Lucas 1920: 69.

- subimmunitus** (Schedl) 1964j: 47 (*Mimips*). Holotype, sex?; Ghana: Kumasi; BMNH, London.
Distribution: Africa (Ghana).
Hosts: *Terminalia ivorensis*.
References: (ds) Schedl 1962j: 88. (tx) Schedl 1962j: 88, 1964j: 47, 1979c: 242.
- sumatranus** Strohmeier 1908b: 69. Holotype ♂; Sumatra insula (Palembang); IPKE, Eberswalde.
Distribution: Indonesia (Java, Sumatra).
References: (hb) Kalshoven 1958b: 173. (ds) Hagedorn 1910d: 62; Kleine 1913b: 132, 1914b: 285. (tx) Hagedorn 1910a: 107; Kalshoven 1959b: 94, 1960d; Schedl 1942d: 25; Strohmeier 1908b: 69–70.
lateclivis Schedl 1942d: 25 (*Ips*). Syntypes, sex?; Java, Djember; Kalshoven Collection and Schedl Collection in NHMW, Wien. Synonymy: Kalshoven 1958: 173.
Notes: (1) Schedl 1979c: 136 (citation of holotype invalid).
References: (tx) Kalshoven 1958: 173; Schedl 1942d: 25, 1979c: 136.
- suspectus** (Schedl) 1965e: 373 (*Mimips*). Holotype, sex?; Congo ex belge—Mulungu; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
References: (tx) Schedl 1965e: 373, 1979c: 247.
- sutirifer** (Schedl) 1965f: 11 (*Mimips*). Holotype, sex?; Uganda, Mpanga; BMNH, London.
Distribution: Africa (Uganda).
References: (hb) Roberts 1969: 126. (tx) Schedl 1962j: 88, 1965f: 11.
- tanganyikaensis** (Schedl) 1957b: 157 (*Ips*). Syntypes, sex?; Tanganyika, Ngorongoro; BMNH, London, and Schedl Collection in NHMW, Wien.
Distribution: Africa (Angola/ Kenya/ Tanzania/ Zaire).
Hosts: *Bersama abyssinica*, *Ricinus communis*.
Notes: (3) Browne 1965a: 196 (described female).
References: (ds) Schedl 1959p: 18, 1962j: 89, 1962k: 1096. (tx) Browne 1965a: 196; Schedl 1957b: 152, 157–158, 1959p: 18, 1959q: 705, 1962j: 89, 1962k: 1096, 1979c: 249.
- tenuis** (Schedl) 1966c: 237 (*Mimips*). Holotype ♂; République du Congo, Dimonika; MNHN, Paris.
Distribution: Africa (Congo).
References: (tx) Schedl 1966c: 237, 1979c: 251.
- tridens** (Schedl) 1967e: 230 (*Mimips*). Holotype ♂; Bouenza cataract; NHMB, Budapest.
Distribution: Africa (Zaire).
References: (tx) Schedl 1967e: 230, 1979c: 255.
- tridentatus** (Schedl) 1977d: 284 (*Mimips*). Holotype ♂; Brazzaville, Orstom Park; NHMB, Budapest.
Distribution: Africa (Congo).
References: (tx) Schedl 1977d: 284.
- tropicus** (Schedl) 1936j: 25 (*Orthotomicus*). Lectotype ♂; Malay Peninsula, Pahang: Rotan Tunggal Forest Reserve; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 256.
Distribution: Asia (Malaya).
Hosts: *Shorea* spp.
Notes: (1) Browne 1963c: 54 (to *Acanthotomicus*).
References: (ds) Browne 1961c: 83, 1980a: 371; Schedl 1936j: 25. (tx) Browne 1963c: 54; Schedl 1936j: 25–26, 1939e: 350, 1979c: 256.
- tuberculatus** (Eggers) 1927c: 79 (*Ips*). Lectotype ♂; Philippines: Mindoro, Mangarin; USNM, Washington, designated by Anderson & Anderson 1971: 35.
Distribution: Philippine Islands.
References: (ds) Schedl 1966b: 42. (tx) Anderson, W. H. & Anderson 1971: 35; Eggers 1927c: 79, 1933g: 18; Schedl 1942d: 25, 1951i: 50, 1954e: 165, 1979c: 257.
- tuberculifer** Wood 1988a: 31. Holotype ♂; Bouenza cataract; NHMB, Budapest, automatic.
Distribution: Africa (Zaire).
References: (tx) Wood, S. L. 1988a: 31.
- tuberculatus** Schedl 1967e: 230 (*Mimips*). Holotype ♂; Bouenza cataract; NHMB, Budapest, preoccupied by Eggers 1927.
References: (tx) Schedl 1942d: 25, 1951i: 50, 1967e: 230–231, 1979c: 257; Wood, S. L. 1988a: 31.
- uncus** (Schedl) 1942a: 180 (*Ips*). Lectotype ♂; Malaya, Selangor; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 260.
Distribution: Asia (Malaya).
Hosts: *Dialium* sp.
References: (ds) Browne 1961c: 83. (tx) Schedl 1942a: 180, 1979c: 260.
- uniformis** (Schedl) 1962k: 1096 (*Mimips*). Holotype ♀; Congo: Kivu; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
References: (tx) Schedl 1962k: 1096, 1979c: 260.
- variabilis** (Browne) 1963: 246 (*Mimips*). Holotype ♂; Nigeria: Iddah; BMNH, London.
Distribution: Africa (Nigeria).
References: (hb) Roberts 1969: 126. (tx) Browne 1963: 246.

Genus *Ips* DeGeer

- Ips* DEGEER 1775: 190. Type-species: *Dermestes typographus* Linnaeus, subsequent designation by Bergroth 1884: 230.
- Cunnatotomicus* Ferrari 1867: 44. Type-species: *Bostrichus stenographus* Duftschmidt = *Dermestes sexdentatus* Boerner. Synonymy: Hagedorn 1910d: 47.
References: (tx) Ferrari 1867a: 44; Hagedorn 1910d: 47; Murayama 1937: 373; Reitter 1913a: 104.
- Cyrtotomicus* Ferrari 1867: 44. Type-species:

Bostrichus acuminatus Gyllenhal, subsequent designation by Hopkins 1914: 120. Synonymy: Eichhoff 1878b: 254.

References: (tx) Eichhoff 1878b: 254; Ferrari 1867a: 44; Hopkins 1914: 120; Reitter 1913a: 104.

Keys: Hopping 1963–1965, Wood 1982b: 669 for North America, Schedl 1950a: 69 for Europe and part of Asia, Yin, Huang, & Li 1984: 127 for China, Nobuchi 1974: 49 for Japan.

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acuminatus (Gyllenhal) 1827: 620 (*Bostrichus*). Syntypes, sex²; apparently Sweden; not located. Figures: Bakke 1960: 303, Balachowsky 1949: 266, Barbey 1925: 234, Bevan 1987: 114, Grune 1979: 150, Nakane et al. 1963: pl. 192, Nobuchi 1974: pls. 1, 3, Tsai & Li 1959: 97.

Distribution: Asia (Heilongjiang, Hunan, Jilin, Neimeng, Shanxi, Sichuan, Yunnan in China/ Japan/ Korea/ Mongolia/ Syria/ Thailand/ Turkey/ Sakhalin Island, Siberia in E USSR), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxemburg/ Netherlands/ Norway/ Poland/ Romania/ Scotland/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Pinus* spp., rare in *Picea*, *Abies*, *Larix*.

Notes: (3) Sturm 1826: 102 (named *Bostrichus quadridentatus*, nomen nudum, no status), Dejean 1837: 332 (named *Bostrichus iconographus* and *B. porographus*, nomen nudum, no status), Ferrari 1868: 44 (cited this species in *Cyrtotomicus*). References: (ay) Beal 1927b; Courtois, Chararas, & Debris 1964a, 1964b; Courtois et al. 1964a: 397, 1964b, 1964c, 1965; Escherich 1923b: 486, 539; Farris 1969: 529; Feytaud 1950a; Francke-Grosmann 1956b, 1966b; Fuchs 1911a; Gehrken 1985, 1989; Gehrken & Zachariassen 1977; Lanier & Kirkendall 1986: 87–96; Nunberg 1928a: 141, 1950a: 138; Nusslin 1911a: 150, 155; Saalas 1938a: 119; Scherb 1971; Ternier 1970b; Wichmann 1912a. (bv) Annala 1971a: 12, 1971b: 10; Bakke 1967b: 49–53, 1973, 1978a; Butovitsch & Ringselle 1968:

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(cn) Acatay 1943a: 67; Agafonov & Kaklin 1979; Andersson & Lekander 1966: 684; Anonymous 1948k: 3, 1978i, 1978w, 1980g; Ass & Funtikov 1941; Bakke 1956: 40-42, 1960: 303; Barbey 1925: 234; Belanovskii 1930: 797-799; Berdennikova 1954: 85; Bertolini 1929: 103-131; Blandford 1892a; Browne 1968: 363; Butovitsch & Ringselle 1968: 24; Butovitsch & Spaack 1941: 200-223; Carle, Vincq, & Bizet 1979; Chararas 1978; Chorbazdzhevo 1929; Crooke 1955b, 1956; Dobrodeev 1924: 70-76; Donaubauer 1960; Dzhambazishvili 1961: 751-757, 1962; Eckstein 1926: 578, 1939: 33-42, 81-92; Egorov 1958: 1492; Eidmann 1965c, 1970a, 1973; Eidmann & Klingstrom 1976: 254; Escherich 1923b: 486, 539, 1932a; Esterberg 1959; Fang, Wang, & Chi 1985; Feytaud 1950a; Fice 1961: 173-204; Fisher 1937c; Francke-Grosman 1952: 12; Franz 1947b; Frölich 1926: 115; Fystro & Bakke 1962; Gabler 1955; Georgescu et al. 1957: 357, 473; Geschwind 1919: 111-119; Gradojevic 1940; Gusev 1928: 144; Hanson, H. 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(tx) Acloque 1896; Alkan 1946: 113; Bach 1854; Bakke 1960: 303; Balachowsky 1949a: 262; Barbey 1901: 24, 88; Bertolini 1872; Bevan 1987: 114; Brancsik 1871; Browne 1972: 19; Chapuis & Candez 1853; Charvat 1950; Choo 1983: 92; Chorbadzhiev 1924d; Doebner 1862: 175; Dombrowsky 1887, 1892; Duffy 1953; Eggers 1910e, 1921: 39–43, 1923: 138; Eichhoff 1864b: 42, 1878b: 253–254, 1881a: 50, 231, 1883a: 112, 1937, 1884: 299; Endrodi 1957b; Escherich 1923b: 486, 539; Escherich & Escherich 1897; Fauvel 1885: 326–329; Ferrant 1911; Ferrari 1867: 43, 83; Fleischer 1927; Fornanek 1907: 42; Fuchs 1911a; Gabler 1955; Gillanders 1908; Grune 1979: 150–151; Gyllenhal 1827: 620; Hagedorn 1910a: 103; Hansen, V. 1956, 1964: 464; Henschel 1876a: 105, 238, 1895a: 179; Hopkins 1914: 120; Iablokoff-Klmzorian 1961: 105; Joly 1976; Judeich & Nitsche 1895: 496; Kalina 1970: 130; Karpinski & Strawinski 1948: 157; Knotek 1892a: 37; Koch 1913: 103, 1932: 137; Kuhnt 1913: 1057; Kurenzov 1941a: 201, 1948b: 107; Kurenzov & Kononov 1966: 31; Leunis 1886: 180; Li & Zhon 1980: 189; Lieutier et al. 1984: 31; Lovendal 1898: 150; Lucht 1987: 279; Munro 1916b: 115, 1926: 1–77; Murayama 1929: 29–30, 1930: 20, 31, 1937b: 374, 1939: 141, 1940a: 232, 1950b: 1293, 1955: 104; Nakane et al. 1963: 383, pl. 192; Niisima 1909: 149, 1910a: 11; Nobuchi 1966b: 34, 1974: 49, pl. 1, 3; Nordlinger 1848: 236, 1956: 19; Novak, V., Hrozinka, & Stary 1976: 58; Nunberg 1928a: 141, 1954: 85; Nusslin 1911a: 150, 155; Perris 1877a: 414; Pfeffer 1932b: 26, 1933: 3–54, 1941b: 3, 1941c: 7, 1947e: 4, 1955a: 252, 1989a: pl. 10; Plaza & Gil 1982: 248; Portevin 1935: 337; Postner 1974: 454; Prell 1929: 90; Quaschik 1953: 35; Ratzeburg 1837: 155, 1839: 189; Redtenbacher 1849a: 790, 1849b: 26, 1858: 836, 1874: 377; Reitter 1894a: 82, 1913a: 108, 1916: 304; Rhumbler 1927: 324; Saalas 1913a: 68, 90, 1914: 304–305, 1949: 344, 395; Sahlberg 1836: 145; Schedl 1934f: 1644, 1941a: 42, 1950a: 73, 1952b: 87, 1953e: 22, 1980a: 27, 1981b: 90; Scherb 1971; Schimitschek 1937c: 8, 58, 1955c: 89; Seidlitz 1872: 395, 1891a: 565, 1891b: 611; Sokanovskii 1929: 521–526, 1936: 73–74, 1960: 677; Spessivtsev 1913a: 74, 1922a: 481, 490, 1925a: 188, 1925b: 19, 1931: 70–71; Stark 1952: 395; Stierlin 1898: 443; Taschenberg 1880: 220, 229; Thomson 1865: 363, 1868: 222; Tsai & Li 1959: 97; Wachtl 1883a: 10, 1895: 8; Weber, L. 1912: 30; Yin, Huang, & Li 1984: 126. (ms) Byers 1984a; Chararas 1971a: 853; DeGryse 1934: 481; Escherich 1932b; Fuchs 1911b; Hartig 1834: 108; Henschel 1880b: 257, 1880c: 60; Kozi-

- kowsky 1929: 254; Lienier 1984a; Michalski 1959a: 291; Schimitschek 1955b: 102; Schwappach 1924: 58; Sedlacek 1913: 455; Vorontoz 1968; Weber 1912: 30; Winogradoff 1911: 147.
- geminatus* Zetterstedt 1828: 345 (*Bostrichus*).
 Syntypes, sex?, Laponia; not located. Synonymy: Hagedorn 1910d: 48.
 References: (hb) Henschel 1877b. (ds) Calver 1893; Hagedorn 1910d: 48; Schann 1859: 96, 1862: 101; Schilsky 1909: 188; Stein & Weise 1877: 164; Sturm 1843: 230; Zetterstedt 1828: 345, 1840: 193. (tx) Balachowsky 1949a: 262; Ferrari 1867a: 46; Sahlberg 1836: 146; Schedl 1950a: 73; Zetterstedt 1828: 345, 1840: 193.
- heydeni* Eichhoff 1884: 298 (*Tomicus*). Syntypes, sex?, Chabarofka (Amur); Hamburg Museum, lost. Synonymy: Hagedorn 1910d: 48.
 References: (hb) Budkov 1897. (ds) Budkov 1897; Heyden 1881: 177, 1893: 177, 1898: 77; Reitter 1894a: 82. (tx) Eggers 1910e: 38–39, 1923b: 138, 1929: 138; Eichhoff 1884: 298; Heyden 1893: 177; Reitter 1894a: 82; Schedl 1934f: 1644, 1950a: 73.
- amitinus* (Eichhoff) 1872d: 138 (*Tomicus*). Syntypes, sex?, Deutschland; Hamburg Museum, lost. Figures: Balachowsky 1949a: 264, 274.
 Distribution: Asia (Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Netherlands/ Poland/ Romania/ Switzerland/ W USSR/ Yugoslavia).
 Hosts: *Abies pectinata*, *Picea excelsa*, *Pinus* spp.
 References: (ay) Biermann & Thalenhorst 1977; Escherich 1923b: 449, 485, 538, 593; Feytaud 1950a; Fuchs 1911a; Negru 1968b: 802; Nunberg 1950a: 138; Nusslin 1911a: 82; Schimitschek 1926: 65; Schonherr 1970b; Zumr & Soldan 1981. (bv) Annala & Petaisto 1978; Balazy 1968; Birgersson et al. 1984: 1049; Chararas 1976b, 1977b; Francke et al. 1980; Grune 1979: 149; Hellrigl 1985; Jahn 1981, 1982; Klassen, Ridgway, & Insoe 1982; Klunetzek & Francke 1980; Martinek 1957b: 282; Nunberg 1950a: 138; Nuorteva 1956c: 93; Prell 1925b: 166, 1931: 366; Schneider-Orelli 1947c: 91; Schonherr 1970b; Simionescu 1967a, 1967b, 1968, 1978; Vasechko 1971a, 1971b; Vite 1980; Zumr & Landa 1985. (cn) Alexandrov 1958; Anonymous 1948k: 3, 1975m; Balazy 1968; Barbey 1924a, 1925: 67, 340; Bernhard 1928: 413, 1929; Borcea 1924: 221–260; Chararas 1957e, 1961b: 81; Charvat 1951; Chorbadzhievo 1929; Demme 1948; Eckstein 1915, 1926: 578; Escherich 1917: 97–115, 1923b: 449, 485, 538, 593, 1932a; Feytaud 1950; Franz 1949b; Gabler 1955; Caloux 1948c, 1948e; Georgescu et al. 1957: 357, 459; Geschwind 1918: 387–395; Guiese et al. 1958; Hanson, H. S. 1940a; Hess 1898: 344, 1907: 246; Hess & Beck 1914: 274, 1927: 331; Jahn 1952a: 98, 1952b: 149; Joly 1976; Judeich 1886: 68; Judeich & Nitsche 1895: 506; Juntinen 1960: 27; Kalandra 1944, 1948a, 1948c: 33–38, 1953a; Keller 1903b: 48, 55; Kellner 1880: 422, 1881: 368; Kholodkovskii 1912: 312; Klausner 1954: 295; Kleiber 1930: 183; Klopfer 1897: 31; Koch 1913: 103; Komarek et al. 1931: 1–256; Koning 1939: 2015; Kovacevic 1957: 67; Kozikowsky 1929: 253; Marcu 1926c: 67, 1930: 321–336; Martinek 1953a: 372, 1964; Mathiesen 1952: 282; Mokrzecki 1925c: 43, 1928: 273; Mrkva 1960; Muller 1912: 186; Nosek 1951: 106, 1952b: 96; Novak, V. 1959b: 64, 1967; Novak, V., Hrozinka, & Stary 1976: 36; Nusslin 1913: 268; Ohnesorge 1955: 279; Oppermann 1985; Pfeffer 1940c: 273, 1948a: 799, 1949b: 147, 1950c: 1; Quaschik 1953: 10; Pierce, W. D. 1917: 69; Rhumbler 1922: 310, 1927: 324; Rosenfeld 1922: 249; Rosenfeld 1919: 29–37, 1926: 38; Rudnev 1965b; Schimitschek 1933b: 93, 1935a: 196, 1937c: 57, 1938a: 301, 1938b: 115, 120, 1939b: 573, 1947g: 191, 1949b: 165, 1950: 14, 1952a: 208, 1955a: 62, 64, 85, 1955b: 102, 1955c: 89, 1956: 340, 1961a: 154; Schindler 1948a: 247; Schmidt 1881: 36; Schuster 1918: 102; Schwedtfeger 1944a: 180, 1948c: 57, 1950b: 61, 1957a: 185; Sedlacek 1921: 338, 1933: 307, 1936: 200; Severin 1902a: 81; Simionescu 1967a, 1970; Sitowski 1933: 383–388; Slander 1948: 10; Thalenhorst 1948: 293; Vasechko 1964; Vite 1955: 1333–1336, 1956: 59; Wachtl 1901: 379, 381; Weber, H. 1926: 574; Wilke 1931: 623; Wolff & Krause 1922: 103; Zieger 1948a: 378; Zolk 1935: 258–294, 614–640, 1937: 147–172; Zumr & Landa 1985. (ce) Alexandrov 1958; Annala & Petaisto 1978; Balazy 1962, 1965b: 301–331, 1968; Balazy & Michalski 1960, 1964a, 1964b; Barbey 1927; Brammanis 1938; Chararas 1957d, 1959a; Escherich 1942: 650, 656; Francke-Grosman 1931; Frickhinger 1921; Gabler 1947c, 1953a; Gadek 1976; Caloux 1947c, 1947d, 1948a; Gauss 1954a: 423; Geschwind 1918; Graham 1969: 874; Grosman 1931a; Györfi 1941b, 1952b; Hellrigl 1985; Jahn & Simreich 1960b; Jamnický 1957c, 1960: 820–831; Karpinski 1932a: 109; Kholodkovskii 1897: 118; Kielczewski 1966, 1976; Kielczewski & Balazy 1967: 161–163; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1983; Klausner 1954: 295; Kleine 1908c: 214, 1944: 70; Kolubajiv & Kalandra 1954: 30; Kuhn 1949a: 265; Lindquist 1969c; Lindquist & Bedard 1961; Mathiesen 1952: 282; Meyer 1918: 178; Nosek 1951: 106, 1952b: 96; Nunberg 1930: 201; Nuorteva 1956a: 18, 1957b: 52, 1959d: 201, 1967a, 1968a, 1970; Nusslin 1927: 324; Okolow 1963; Peklo 1949: 336; Pfeffer 1923a: 332, 1932a: 16, 1943b: 179, 1949b: 147, 1950c: 1, 1952a: 159, 1957a: 199, 1959: 2; Poinar 1975: 160; Prell 1925a: 138–141, 1925b: 166; Quaschik 1953: 10; Pfeffer 1960: 346; Rosenfeld 1919: 30; Roubal 1934a: 87; Ruhm 1956b: 4; Rybinski 1903: 28; Schaarschmidt 1959: 813; Schimitschek 1930a: 256, 1931b: 462, 1935a: 196, 1936a: 559, 1950: 14, 1952a: 208,

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(**hb**) Altum 1881c: 297; Annala & Nuorteva 1977; Annala & Petaisto 1978; Anonymous 1948k: 3; Balazy 1968; Barbey 1901: 24, 84, 1924a, 1925: 67, 340, 1942; Beffa 1961; Biermann & Thalenhorst 1977; Borcea 1924; Braun 1941c; Butovitsch 1930b; Chararas 1957e, 1961b: 81, 1962c: 202, 1977b; Charvat 1950, 1951; Chorbadzhevo 1929; Dombrowsky 1887, 1892; Eckstein 1889, 1897, 1915, 1926: 578; Eichhoff 1881a: 49, 217, 1882a: 241, 1883e: 50; Escherich 1923b: 449, 485, 538, 593; Feytaud 1950a; Flohrer 1948; Fuchs 1904a, 1905c: 340, 1906b; Fürst 1888: 112; Gabler 1948b, 1955; Galoux 1948a; Györfi 1957; Henschel 1876a: 119, 238, 1877b, 1878b, 1885b, 1895a: 180; Hess 1898: 344, 1907: 246; Hess & Beck 1914: 274, 1927: 331; Joly 1976; Judeich 1886: 68; Judeich & Nitsche 1895: 506, 509; Karpinski 1933b: 38; Karpinski & Strawinski 1948: 157; Keller 1910: 5; Kellner 1875a: 641, 1876a: 40, 1876b: 191, 1880: 422, 1881: 368; Kholodkovskii 1889: 263, 1912: 312; Knotek 1894a: 558, 1897: 152, 1898b: 327, 333; Kraemer 1953: 483; Lengerken 1939: 36, 1954: 92; Loos 1913: 409; Louzil 1961: 45; Lunardon & Leonardi 1889: 469; Martinek 1957b: 282; Novak, V., Hrozinka, & Stary 1976: 36; Numberg 1946b: 3; Nuorteva 1956c: 93, 1967a, 1968a, 1970; Nusslin 1898: 281, 1913: 268, 1927: 324; Ohnesorge 1955: 279; Orest 1927: 59; Pauly 1894: 376; Pfeffer 1941c: 5, 1952a: 159, 1989a: 76; Postner 1974: 458; Prell 1931: 366; Quaschik 1953: 10; Rhumbler 1922: 310, 1927: 324; Schedl 1981b: 91; Schimitschek 1930a: 256, 1938a: 301, 1955a: 62, 64, 85; Schmidt 1881: 36; Schneider & Sierpinski 1955: 60; Schneider-Orelli 1947b: 157, 1947c: 91; Schwerdtfeger 1944a: 180, 1957a: 185, 1981: 192; Sedlacek 1921: 338, 1935a: 154; Severin 1902a: 81; Simionescu 1967b, 1968, 1978; Spessivtsev 1913a: 75, 1921b: 222, 1923: 209; Stark 1952: 402; Taschenberg 1880: 220; Thalenhorst 1958: 34; Tschorbadzhev 1929: 174; Vasechko 1971a, 1971b; Wachtl 1876a: 355, 1901: 379, 381; Weber, H. 1926: 574; Wolff & Krause 1922: 103; Xambeu 1901: 54; Zinovjev 1957: 343; Zumr 1982c, 1982d; Zumr & Soldan 1981. (**ds**) Ammann & Knabl 1913, 1923; Anonymous 1928c: 202, 1975m; Austara et al. 1983; Balazy & Michalski 1960; Balogun 1970: 226; Barthe 1896; Ban 1888; Bielz 1887; Borcea 1924; Brakman 1966b: 207; Branesik 1906; Bucking 1932; Buresh & Lazarov 1956; Cecconi 1897; Chararas 1961c: 95, 1977b, 1981; Chararas & Kountoumpas 1977; Charvat 1950; Chorbadzhevo 1924d, 1929; Crooke & Bevan 1957; Debatisse 1945; Eder 1934; Endrodi 1958b; Ermisch 1953; Escherich 1923b: 449, 485, 538, 593, 1932b; Favre 1890; Fricken 1889: 344; Fuchs 1904a, 1905a, 1905c: 340, 1906b, 1913; Gabler 1949b; Gemminger & Harold 1872: 2689; Geschwind 1918; Grouzelle 1905; Grune 1979: 149; Györfi 1941b; Hagedorn 1910d: 48; Harde & Kostlin 1965: 267; Heinemann 1908a; Hellen 1947; Hendel 1928: 37–39; Hennig 1954: 263; Henschel 1895a: 180; Heyden, Reitter, & Weise 1883: 182, 1891: 672, 1906: 712; Horion 1951; Jacentkovsky 1912: 291; Jamnicky 1960a; Joly 1976; Judeich & Nitsche 1895: 506; Karpinski 1926: 83, 1931: 35, 1932a: 109, 1933b: 38, 1948b: 231; Karpinski & Strawinski 1948: 157; Keller 1910: 5; Kellner 1876b: 191; Kiefer et al. 1942: 529; Klefbeck & Sjöberg 1960: 232; Kleine 1912a: 128, 262, 264, 268, 1913a: 35, 1913b: 127, 1934a: 150; Knotek 1892a: 37, 1894a: 558, 1898b: 327, 333; Koponen 1975, 1980; Kovacevic 1957: 67; Kurir 1947c: 7; Langhoffer 1915c: 158; Leclercq 1971; Liegel 1886: 43; Lomnicki 1913b: 148; Loos 1913: 409, 1919: 283–288; Lucht 1987: 279; Lunardon & Leonardi 1889: 469; Marchant & Borden 1976; Marcu 1926c: 67; Michalski 1957: 167; Mokrzecki 1928: 273; Negru 1966b: 404; Numberg 1927a: 213, 1928b: 88, 117, 1930: 200–208, 1947: 99–108, 1954: 86; Nuorteva 1955a: 30, 1956b: 168; Nusslin 1898: 281; Orest 1926c: 67; Pfeffer 1924b: 472, 1930b: 120, 1931b: 75, 1936: 90, 1942c: 448, 1947e: 2, 1949: 145–159, 1950b: 75, 1960: 346, 1989a: 76; Pierce, W. 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(**tx**) Balachowsky 1949a: 267; Balogun 1970: 230; Barbey 1901: 24, 84; Beffa 1961; Charvat 1950; Chorbadzhevo 1924d; Doeblner 1876; Dombrowsky 1887, 1892; Eggers 1929e, 1844c: 141; Eichhoff 1872d: 138, 1877b: 118–119, 1877c: 387, 1878b: 236, 1881a: 49, 217, 1883a: 111, 137; Endrodi 1957b; Escherich 1923b: 449, 485, 538, 593; Escherich & Escherich 1897; Fanvel 1889; Ferrari 1878; Fleischer 1927; Flohrer 1948; Fornanek 1907: 42; Fricken 1889: 344; Fuchs 1911a, 1913; Gabler 1949b, 1955; Gebien 1907:

197; Grune 1979: 148–149; Hagedorn 1910a: 103; Hellrigl 1985; Henschel 1876a: 119, 238, 1878a, 1882a: 97–98, 1895a: 180; Hess 1875; Heyden 1875: 391; Joly 1976; Judeich & Nitsche 1895: 506; Kalina 1970: 130; Karpinski & Strawinski 1948: 157; Kellner 1875: 641, 1876: 192; Knotek 1892a: 37; Koch 1913: 103, 1928: 88, 1932: 137; Kraatz 1876d: 24; Kuhnt 1913: 1057; Letzner 1891: 376; Leunis 1886: 180; Louzil 1961: 108; Lovendal 1898: 150; Lueht 1987: 279; Lunardoni & Leonardi 1889: 469; Negri 1966b: 404; Novak, V., Hrozinka, & Stary 1976: 36; Nunberg 1954: 86; Nusslin 1911a: 82; Pfeffer 1932b: 26, 1941c: 5, 1947e: 2, 1955a: 250; Portevin 1935: 337; Postner 1974: 458; Quaschik 1953: 35; Redtenbacher 1874: 378; Reitter 1894a: 81, 1913a: 105–106, 1916: 303; Rhumbler 1922: 310, 1927: 324; Schedl 1934f: 1644, 1950a: 82, 1980a: 27, 1981b: 91; Schimitschek 1927: 65–75, 1930: 243–244, 1931: 460–491, 1937c: 57, 1955c: 89; Sedlaczek 1912: 306; Seidlitz 1891a: 565, 1891b: 611; Spessivtsev 1913a: 75, 1921: 219–223, 1923: 200–214, 1931: 73; Stark 1952: 402; Stierlin 1898: 44; Taschenberg 1880: 220; Wachtl 1882: 34–35, 1883a: 12, 1895: 8; Weber, L. 1912: 31. (ms) Eggers 1911b; Escherich 1932b; Heinemann 1908a; Kozikowsky 1929: 253; Schimitschek 1930b: 407, 1933b: 93, 1955b: 102; Schwappach 1924: 57; Sedlaczek 1904: 359, 1913: 455, 1936: 200; Seitner 1913a: 27; Weber, L. 1912: 31.

amitinus montanus Fuchs 1913: 80. Syntypes not indicated; Engadin, Deutschland; not located, preoccupied by Eichhoff 1881a: 219. Synonymy: Reitter 1913a: 105 (validity questioned), Schedl 1950a: 82.

References: (cc) Schimitschek 1930a: 256. (hb) Schimitschek 1930a: 256. (ds) Zivojinovic 1960. (tx) Eggers 1929e: 50; Fuchs 1913: 80; Reitter 1913a: 105; Schedl 1934f: 1644, 1950a: 52.

apache Lanier 1991: 1118. Holotype, sex?, 7 miles west of Portal, Cochise Co., Arizona [USA]; USNM, Washington.

Figures: Lanier, Teale, & Pajares 1991 (adult parts). Distribution: North America (Guatemala/ Honduras/ Chiapas, Hidalgo, Mexico, Michoacan, Nuevo Leon, Sinaloa in Mexico/ Arizona in USA).

Hosts: *Pinus ponderosa*, *P. engelmannii*, *P. leiophylla*, *P. teocote*, *P. oocarpa*?, *P. caribaea*?, *P. tecumanii*?

Notes: This species was not seen or reviewed by us. References: (ay) Lanier, Teale, & Pajares 1991. (ds) Lanier, Teale, & Pajares 1991. (tx) Lanier, Teale, & Pajares 1991.

avulsus (Eichhoff) 1868a: 402 (*Tomicus*). Syntypes, sex?, Amerique borealis [USA]; Hamburg Museum, lost.

Figures: Blackman 1922b: pl. 11, fig. 57, Goyer et al. 1980: 20, Hopping 1964b: 973.

Distribution: Antilles Islands (Bahama Islands),

North America (Alabama, Arkansas, District of Columbia, Florida, Georgia, Louisiana, Mississippi, New Jersey, North Carolina, Pennsylvania, South Carolina, Texas, Virginia, West Virginia, Wisconsin in USA).

Hosts: *Pinus* spp.

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(bv) Anderson, N. H. & Anderson 1968: 23; Anonymous 1972v, 1979a; Atkinson, Foltz, & Connor 1988; Barr, B. A. 1969: 641; Bennett & Ostmark 1972; Berisford & Franklin 1971; Billings 1984b; Birch 1978b; Birch & Svihra 1979b; Birch et al. 1980; Borden et al. 1981: 561; Cameron, R. S. 1987; Dixon 1983; Dixon & Payne 1979b; Gara & Coster 1968: 77–86; Couger, Yearian, & Wilkinson 1975; Hedden, Vite, & Mori 1976; Hetrick 1960; Hughes 1974; Inscoc 1982; Jacobson 1965, 1972; Klassen, Ridgway, & Inscoc 1982; Lanier & Burkholder 1974; Mason, R. R. 1965a, 1967, 1970: 1036–1041; Payne & Wood 1981: 492; Rudinsky 1974a: 409; Silverstein & Young 1976: 21; Smith, M. T. et al. 1958; Speers 1971; Svihra 1982; Svihra, Paine, & Birch 1980; Thatcher & Connor 1985; Turnbow & Franklin 1980; Vite, Bakke, & Renwick 1972: 1971; Vite, Gara, & von Scheller 1964: 461–470; Vite, Ohloff, & Billings 1978; Vite & Pitman 1967: 683–701; Wagner, Flamm, & Coulson 1985; Wilkinson 1962, 1963: 19–22, 1964; Yearian 1967b. (cn) Anderson, R. F. 1966; Anonymous 1952h: 7, 1960i, 1960j: 23, 1960q, 1961f, 1961h, 1961s, 1962h, 1963j, 1964h, 1965b, 1966f, 1967f, 1968g, 1970j: 6, 1971h: 6, 1979a, 1981u, 1985k: 46; Baker, W. L. 1972: 260; Beal & Massey 1945: 140–142; Bennett, W. H. 1954, 1955, 1956a: 2, 7–9, 1956b, 1957; Bennett & Ostmark 1972; Berisford 1969a, 1969b: 691–692; Birch & Svihra 1979b; Blackman 1950; Bongberg 1957, 1962; Cameron, R. S. 1987; Chamberlin 1939: 425; Cibulsky & Hyeche 1974, 1977; Coulson & Witter 1984: 536; Craighead 1927: 1–12, 1935: 136; Currie 1905: 100; Doane et al. 1936; Downing, Ward, & Ciesla 1970: 29; Drooz 1985: 359; Ebel, Merkel, & Kowal 1964, 1968, 1971, 1975, 1977; Eikenbary, Arnold, & Pinkston 1974; Elliot & Mobley 1938; Fatzinger 1985b; Felt 1906: 752; Gentry, C. R. et al. 1979: 779; Hamel 1980: 774; Hammerle 1952: 8; Harrison 1956; Herrick 1935: 374; Hetrick 1942, 1943, 1960; Hetrick & Moses 1953; Hodges & Pickard 1971: 49; Hofacker et al. 1989; Hopkins 1899c: 422, 445, 1904a: 41, 44; Johnston & Coyne 1954; Jones & Ford 1954: 1–6; Koch, P. 1972; Kowal 1953: 106, 1955b: 1, 1955d: 4, 1956a: 4, 1957b: 20, 1957d: 175, 1957e: 12, 1958a: 402, 1959a: 39, 1959b: 161; Kowal & Ebel 1971, 1977; Lee 1954a: 5; Lewis 1973; Lexon 1939: 259, 269; Mason, C. N. 1969: 5; Mason, R. R. 1965a; Merkel & Kowal

Veracruz in Mexico/ Guatemala/ Honduras/ S Arizona in USA).

Hosts: *Pinus montezumae*, *P. ponderosa*, *P. pseudostrobus*, *P. spp.*

References: (ay) Mankins, J. V. 1980; Thomas, J. B. 1967. (bv) Barr, B. A. 1969: 641; Silverstein & Young 1976: 21; Vite, Bakke, & Renwick 1972: 1971; Vite & Pitman 1967: 683–701. (cn) Mankins, J. V. 1980; Perry 1951: 159; Rodriguez 1968, 1970; Rose-Chaffin 1967b: 4181–4182; Schwerdtfeger 1956b: 51; Villarreal Martinez 1957: 11. (ec) Becker 1955; Furniss, R. L. & Carolin 1977: 390; Gispert Galvan 1983; Lindquist, E. E. 1969c, 1971; Rose-Chaffin 1967b: 4181–4182. (hb) Atkinson et al. 1986: 31; Becker 1955; Burgos & Saucedo 1983: 93; Furniss, R. L. & Carolin 1977: 390; Hopping, G. 1964b: 973; Mankins, J. V. 1980; Rodriguez 1970; Schwerdtfeger 1956b: 51, 54; Wood, S. L. 1982b: 691. (ds) Atkinson & Equihua 1985a: 85, 1985b: 235, 1988: 92; Atkinson et al. 1986: 31; Blackwelder 1947: 782; Burgos & Saucedo 1983: 93; DeLeon 1938; Ferrer 1942; Furniss, R. L. & Carolin 1977: 390; Hagedorn 1910d: 50; Hopping, G. 1964b: 973; Kleine 1913b: 121, 1914b: 350; Perry 1951: 159; Schedl 1963c: 158, 1977e: 43; Thomas, J. B. 1966a; Wood, S. L. 1957c: 397, 1982b: 691. (tx) DeLeon 1938; Hagedorn 1910a: 104; Hopkins 1905b: 76; Hopping 1963c: 512, 1964b: 970–973; Mankins, J. V. 1980; Schedl 1940a: 349, 1955g: 45; Thomas, J. B. 1967; Wood, S. L. 1957c: 394–397, 1982b: 691.

borealis Swaine 1911a: 213. Lectotype ♀; St. Anthony, Newfoundland [Canada]; CNCI, Ottawa, designated by Bright 1967b: 675.

Notes: Wood 1982b: 681 (subspecies established).

References: (ay) Lanier & Kirkendall 1986: 87; Thomas, J. B. 1957: 4, 1967. (bv) Furniss, Baker, & Hostetler 1976: 1300. (cn) Baranyay & Stevenson 1966: 85; Beckwith 1972; Chamberlin 1924; Craighead 1924: 28–91; Doane et al. 1936; Hoffmann 1952b: 400, 1955: 90; Holsten, Werner, & Laurent 1980; Lindquist, O. H. & Syme 1981: 61; Massey 1956a: 20; Massey & Wygant 1954: 21; Mumford 1960: 29; Rodary 1959: 852; Ruppel 1967: 54; Sippell, Dance, & Rose 1966: 57; Smith, G. J. & Melvin 1974a, 1974b; Swaine 1924d: 9, 11, 1929: 145–146; Swaine et al. 1924: 18, pl. 21; Syme & Nystrom 1988: 58; Tripp & Blauel 1969: 104. (ec) Craighead et al. 1927: 1–12; Furniss, R. L. & Carolin 1977: 390; Gobeil 1936b; Kaya 1984; Lindquist, E. E. 1969c; Massey & Wygant 1954: 21; Poinar 1975: 160; Rodary 1959: 852; Swaine 1924d: 9; Thomas 1958: 394; Wichmann 1955a: 102. (hb) Baker, W. L. 1972: 262; Chamberlin 1939: 428, 1958: 173–174; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 390; Gara & Holsten 1975; Gobeil 1936c; Holsten, Werner, & Laurent 1980; Hopping, G. 1961b, 1965c: 194; Ives & Wong 1988: 81; Massey & Wygant 1954:

21; Sampson 1929b: 146; Swaine 1918a: 110, 117, 1924d: 9, 1929: 145; Swaine et al. 1924: pl. 21. (ds) Anonymous 1926c: 519; Austara et al. 1983; Baranyay & Stevenson 1966: 85; Beaulne 1956; Beckwith 1972a; Bright 1971a: 126, 1976d: 162; Chamberlin 1925, 1939: 428, 1958: 173–174; Dodge 1938: 48–51; Drooz 1955: 361; Furniss, R. L. & Carolin 1977: 390; Gara & Holsten 1975; Gantreau 1974: 5; Hatch 1939: 50; Hoffmann 1952b: 400, 1956: 90; Hopping, G. 1965c: 194; Hopping, R. 1922; Keen 1929a: 39; Kleine 1913b: 127, 1934a: 150; Kusch 1967; Leng 1920: 341; Leonard 1928: 519; Lindquist, O. H. & Syme 1981: 61; Morgan, A. V. & Morgan 1980: 1110; Mumford 1960: 29; Ruppel 1967: 54; Smith, G. J. & Melvin 1974a, 1974b; Still, Tidsbury, & Melvin 1974a, 1974b; Syme & Nystrom 1988: 58; Werner & Holsten 1984; Wichmann 1955a: 102; Wood, S. L. 1972a: 420, 1982b: 681. (tx) Beckwith 1972a, 1972b; Benoit 1985: 137; Bright 1967b: 673, 675, 1976d: 154, 162; Chamberlin 1939: 428, 1958: 173–174; Dodge 1938: 48, 51; Hoebeke 1978; Hopping, G. 1963c: 512, 1965c: 193–195; Ives & Wong 1988: 80; Keen 1929a: 39; Kusch 1967: 9; Lindquist, O. H. & Syme 1981: 61; Pardy 1974, 1977, 1983; de Ruelle 1970: 102; Swaine 1911a: 213, 1915: 359, 1918a: 110, 117–118; Syme & Nystrom 1988: 58; Thomas, J. B. 1957: 4, 1967; Titus, Meikle, & Harrison 1985: 77; Wood, S. L. 1972a: 420, 1982b: 681. (ms) Hopping, G. 1961b.

borealis borealis:

Figures: Hopping 1964b: 973, 1965c: 193, Ives & Wong 1988: 80, Kusch 1967: 9.

Distribution: North America (Alaska/ Alberta, N British Columbia, Manitoba, New Brunswick, Newfoundland, Northwest Territories, Ontario, Quebec, Saskatchewan in Canada/ Maine, Minnesota, Montana in USA).

Hosts: *Picea glauca*.

References: (ds) Gast et al. 1989: 385. (tx) Wood, S. L. 1982b: 683.

borealis swainaei Hopping, R. 1939: 169. Holotype ♀; Creighton Valley, Lumby, British Columbia [Canada]; CNCI, Ottawa.

Figures: Hopping 1965c: 195.

Distribution: North America (S British Columbia in Canada).

Hosts: *Picea engelmannii*.

Notes: (1) Wood 1982b: 683 (reduced to subspecies).

References: (cc) Lindquist, E. E. 1969c. (hb) Chamberlin 1958: 175. (ds) Blackwelder & Blackwelder 1948; Chamberlin 1955: 175; Hopping, G. 1963b: 198; Wood, S. L. 1982b: 683. (tx) Chamberlin 1958: 175; Hopping, G. 1963c: 510, 1965c: 193, 198; Hopping, R. 1939: 169; de Ruelle 1970: 103; Wood, S. L. 1982b: 683.

borealis thomasi Hopping, G. 1965c: 193. Holotype ♀; Ingonish, Nova Scotia [Canada]; CNCI, Ottawa.

Figures: Hopping 1965c: 195.

Distribution: North America (Nova Scotia in Canada).

Hosts: *Picea glauca*.

Notes: (1) Wood 1982b: 683 (reduced to subspecies).

References: (cn) Lindgren 1980a: 66. (hb) Lindgren 1980a: 66. (ds) Wood, S. L. 1982b: 683. (tx) Hopping, C. 1965c: 193, 195; de Ruelle 1970: 103; Wood, S. L. 1982b: 683.

borealis lanieri Wood 1974: 27. Holotype ♀; 2 km S Brownsville, Lawrence Co., South Dakota [USA]; Wood Collection.

Distribution: North America (Colorado, South Dakota, E Wyoming in USA).

Hosts: *Picea engelmannii*, *P. glauca*.

References: (ds) Wood, S. L. 1982b: 683. (tx) McNamara 1984: 753; Wood, S. L. 1974: 27, 1982b: 683.

calligraphus (Germar) 1824: 461 (*Tomicus*). Syn-types, sex?; Kentucky [USA]; MNB, Berlin.

Figures: Baker 1972: 261, Blackman 1922b: pl. 11, fig. 56, Bright 1972d: 59, 1976d: 154, Hopping 1965f: 804.

Distribution: Antilles Islands (Bahama Islands/ Cuba/ Dominican Republic in Hispaniola/ Jamaica), Australia (introduced), North America (Belize/ Ontario, Quebec in Canada/ El Salvador/ Guatemala/ Honduras/ all states in Mexico/ Nicaragua/ Alabama, Arizona, Arkansas, California, Colorado, Delaware, District of Columbia, Florida, Georgia, Indiana, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia, Wisconsin, Wyoming in USA).

Hosts: *Pinus* spp.

Notes: (3) Dejean 1837: 332 (*chloroticus*, nomen nudum, *conformis*, nomen nudum, no status, synonymy in Eichhoff 1878b: 224). Lanier, Teale, & Pajares 1991 (recognize subspecies *calligraphus*, *ponderosae*, and *interstitialis* [but the characters they cite are unusable and inconsistent and do not distinguish geographical races, SLW]).

References: (ay) Anderson, N. H. & Anderson 1968: 23; Hopkins 1894g; Hopping, G. R. 1965d: 805; Hughes 1974; Kudon & Berisford 1981; Lanier, Teale, & Pajares 1991; Mankins, J. V. 1980; Miller, M. C. 1979a, 1979b; Nijholt & Sahota 1974: 931; Numberg 1950a: 138; Payne et al. 1973; Richeson 1969; Richeson, Nation, & Wilkinson 1971; Richeson, Wilkinson, & Nation 1970; Schonherr 1970b; Slansky & Haack 1986; Smith, M. T. et al. 1988; Thomas, J. B. 1957: 4, 1967; Wilkinson 1962, 1963; Wilkinson et al. 1967; Wood, D. L. & Stark 1968. (bv) Anderson, N. H. & Anderson 1968: 23; Annala 1971a: 13; Anony-

mous 1972u, 1972v, 1979a; Bakke 1973; Barr, B. A. 1969: 641; Bennett, W. H. & Ostmark 1972; Billings 1984b; Birch 1978b; Birch & Svihra 1979b; Birch et al. 1980; Borden et al. 1981: 561; Cameron, R. S. 1987; Clemens 1916: 297; Dewey, Ciesla, & Meyer 1974; Dixon 1983; Dixon & Payne 1979b, 1980; Haack et al. 1984, 1987, 1989; Hackstein & Vite 1978; Hertel, Hain, & Anderson 1969: 1086; Hetrick 1960; Hughes 1974; Inscoc 1982; Inscoc & Beroza 1976: 147; Jacobson 1965, 1972; Kinn 1986b; Klassen, Ridgway, & Inscoc 1982; Krawielitzki et al. 1983; Lanier & Burkholder 1974; Lapis 1986; Lapis & San Valentin 1979; Numberg 1950a: 138; Payne & Wood 1981: 492; Phillips 1988: 430; Pitman 1966b; Renwick & Vite 1972; Schmitz 1972: 1727; Schonherr 1970b; Silverstein & Young 1976: 21; Slansky & Haack 1986; Smith, M. T. et al. 1988; Svihra 1982; Svihra, Paine, & Birch 1980; Thatcher, R. C. & Connor 1985; Vite, Bakke, & Renwick 1972: 1971; Vite, Gara, & von Scheller 1964: 461–470; Vite, Ohloff, & Billings 1978; Vite et al. 1976; Wagner, Flamm, & Coulson 1985; Wilkinson 1962: 43–44; Wilkinson et al. 1967: 188; Wood, D. L. & Stark 1968: 145–151; Yearian 1967b: 25–27. (cn) Anderson, R. F. 1966: 230; Anonymous 1940b: 209, 1952h: 7, 1960i, 1960j: 23, 1960q, 1961h, 1962h, 1963j, 1964h, 1965b, 1966f, 1967f, 1968g, 1970j: 6, 1971h: 6, 1972f, 1973b, 1974e, 1978e, 1979a, 1981u, 1985k: 46; Ascencio 1979; Baker, W. L. 1972: 260; Basilis 1977; Beal & Massey 1945: 144–145; Becker, W. B. 1959b, 1962, 1964a, 1964c; Becker, W. B., Abbott, & Rick 1956: 664; Becker, W. 1962, 1964c; Bennett, W. H. 1954, 1955, 1956a: 2, 1956b, 1957; Bennett, W. H. & Ostmark 1972; Berisford 1969a, 1969b: 691–692; Bess 1944: 14–16; Birch & Svihra 1979b; Blackman 1950; Bongberg 1957; Britton & Zappe 1922: 194–202; Browne 1968: 363; Cameron, R. S. 1987; Chamberlin 1924, 1939: 416; Ciesla 1973; Ciesla, Dewey, & Tunnoek 1971: 19; Clemens 1916: 297; Cook & Hain 1988; Coulson & Witter 1984: 536; Craighead 1927: 1–12, 1935: 136; Dewey, Ciesla, & Meyer 1974; Doane et al. 1936; Downing, Ward, & Ciesla 1970: 29; Drooz 1985: 358; Ebel, Merkel, & Koval 1964, 1968, 1971, 1975, 1977; Eikenbary, Arnold, & Pinkston 1974; Elliot & Mobley 1938; Etheridge 1968, 1971; Fatzinger 1985b; Felt 1901: 482, 485, 1902b: 64, 1906: 334–358, 1924: 264, 1926: 264, 1930a: 249, 264, 1935: 233; Felt & Bromley 1942: 170, 1943: 326–327; Felt & Rankin 1932: 406; Fitch 1858: 721; Friend 1940: 222; Gara & Coster 1968: 77–86; Garman 1893: 50–52, 1894: 127; Gentry, G. R. et al. 1979: 779; Gillette 1903: 116–117; Graham 1939b; Halperin 1976a; Hamel 1980: 774; Harrington 1881: 32; Harrison 1956; Herrick 1935: 249; Hetrick 1940a: 209, 1941, 1942: 181–183, 1943, 1960; Hetrick & Moses 1953; Hodges & Pickard 1971: 49; Hoffacker et al. 1989; Hoffard & Oak 1980; Hopkins

- 1892b, 1894c, 1894d, 1894g: 279, 1899c: 340, 422, 445, 1902: 11; James & Linnane 1980: 14; Johnson 1897: 109–110; Johnston & Coyne 1954; Jones & Ford 1954: 1–6; Koch, P. 1972; Kowal 1953: 106, 1955b: 1, 1955d: 4, 1956a: 4, 1957b: 20, 1957d: 175, 1957e: 12, 1958a: 402, 1959a: 39, 1959b: 161; Kowal & Ebel 1971, 1977; Lee 1954a: 5; Lewis 1973; Lexon 1939: 269; Lindquist, O. H. & Syme 1981: 61; Mankins, J. V. 1980; Mask 1982; Mason, G. N. & Jones 1969: 5; Mattson & Haack 1987; McCowan 1961; Merkel & Kowal 1956: 3; Merkel & Kulman 1955: 5; Middleton 1928b: 423; Miller, M. C. 1979a, 1979b; Moore, G. E. 1977a, 1978b, 1982; Mumford 1960: 29, 1964: 30; Nagel 1959: 4; Neal 1979: 799; Neel 1959: 1; O'Byrne 1946: 3–6; Ollien & Mason 1967: 7, 1968: 8; Örr & Kowal 1956: 654; Packard 1881: 166–170, 1890: 711–712; Parr 1943: 419; Payne & Wood 1981: 492; Plumb 1958: 10; Polivka 1938: 130, 1940: 229; Price 1987; Ragenovich & Coster 1974; Raimo & Sharon 1981; Rice 1969: 382–386; Richeson et al. 1970: 1797–1799; Robertson & Whitfield 1968: 1–8; Robinson, J. V. 1981; Rose, W. F., Billings, & Vite 1981; Ross & Mattoon 1939: 48; Rumbold 1931: 847–873; Smith, A. 1981; Smith, J. B. 1900: 363, 1901b: 92; Snyder 1935: 15, 1936: 19; St. George 1924: 38, 1925: 50, 1928: 15, 1929b: 12, 1930: 825–828; Stevens, Brewer, & Leatherman 1980: 25; Stubbs, J. 1978; Swaine 1913: 90, 1918a: 107, 112, 1933: 30; Syme & Nystrom 1988: 58; Thatcher, R. C. 1960; Tsankov 1977; Walsh 1867a: 103; Ward, J. C. D., Kucera, & Downing 1971: 30; Wilkinson 1963: 19–22, 1964: 62; Wilkinson & Foltz 1982; Williams, I. F. 1980; Wood, D. L. & Stark 1968; Wootten 1963: 23; Wyman 1932: 46; Yamaguchi 1979; Yates, H. O. 1972a; Younan 1979. (cc) Berisford 1969a, 1969b, 1974b; Berisford, Kulman, & Pienkowski 1970: 484; Berisford et al. 1971: 236; Birch 1978b; Birch & Svihra 1979b; Borden et al. 1981: 561; Bridges 1978; Brower 1974, 1977; Burks 1979: 824; Bushing 1965: 460; Callahan & Shifrine 1960: 146; Chamberlin 1939: 416; Cibulsky & Hyche 1974, 1977; Clark 1965: 1–3; Clark & Osgood 1964b: 3, 1964c: 4; Craighead et al. 1927; Cross & Moser 1971; Dale 1967; Dixon & Payne 1979a: 180, 1979b, 1980; Dozier 1920; Felt 1906: 345; Flamm et al. 1987; Furniss, R. L. & Carolin 1977: 397; Goyer 1986; Graham 1939b; Grissell 1979: 764; Haack 1985; Haack, Foltz, & Wilkinson 1985; Haack et al. 1989; Haliburton 1943; Hammerle 1952: 8; Heqvist 1959: 181; Hetrick 1949c, 1960; Hirschmann & Wisniewski 1982, 1983; Hodges & Pickard 1971: 47; Hoffard & Coster 1976; Holst 1936, 1937: 676; Houser 1931: 657; Hunter 1964; Hunter & Davies 1963; Hunter, Rosario, & Moser 1989; Hurlbutt 1967; Jones 1954; Jouvenaz & Wilkinson 1970: 295–296; Kinn 1971, 1984a; Kobayashi, de Guzman, & Quintos 1977; Kudon & Berisford 1980, 1981; Kulhavy et al. 1989; Liebhold 1983; Lindquist 1969c, 1971, 1975a: 25; Lindquist & Hunter 1965; Lorio 1973; Marsh 1979: 169; Massey 1962: 67–75; Mattson & Haack 1987; Mignot & Anderson 1969; Miller, M. C. 1983, 1984a, 1984b, 1985, 1986a, 1986b; Mizell, Frazier, & Nebeker 1984; Nelson 1934: 329; Nelson & Beal 1929: 1102; Overgaard & Nachod 1971; Paine, Birch, & Svihra 1981; Poinar 1975: 161; Reid 1957b: 7; Rice 1968, 1969: 386; Richerson, J. V. & Borden 1972a; Riley & Goyer 1988; Rohlf & Hyche 1981, 1984; Rose, W. F., Billing, & Vite 1981; Rumbold 1931c: 847, 1936: 419; Savely 1939: 334; Singh 1977: 98; Slaby 1947: 379; St. George 1928: 15; Thatcher 1960: 1–25; Thomas, G. M. & Poinar 1973: 275; Thompson, W. R. & Simmonds 1964, 1965: 73; Vite, Gara, & Von Scheller 1964; Wagner, Flamm, & Coulson 1985, 1986; Wagner et al. 1987; Webb 1945: 70; Wilkinson 1964; Wilkinson et al. 1978; Wood, D. L. & Stark 1968; Woodring 1966c; Woodring & Moser 1970, 1975; Yearian 1967b; Yearian, Gouger, & Wilkinson 1972; Yearian & Wilkinson 1963, 1965, 1967; Younan 1979. (hb) Anderson, N. H. & Anderson 1968: 23; Anonymous 1970j: 6, 1979a, 1985k: 46; Ascencio 1979; Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 260; Beal & Massey 1945: 144–145; Bennett, W. H. 1955, 1956: 7–9; Bennett, W. H. & Ostmark 1972; Blackman 1922b, 1950; Bongberg 1959a; Bright 1976d: 165; Brower 1974; Browne 1968: 363; Burgos & Saucedo 1983: 94; Chamberlin 1939: 416; Chittenden 1890, 1899a; Ciesla 1973; Clark & Osgood 1964c; Clemens 1916; Cook, S. P. et al. 1983; Coulson & Witter 1984: 536; Deyrup & Atkinson 1987a: 65; Dillon & Dillon 1961: 812; Doane et al. 1936; Drooz 1985: 358; Eikenbary, Arnold, & Pinkston 1974; Felt 1906: 345, 1926: 264, 1930a: 249, 264; Felt & Rankin 1932: 406; Fitch 1858; Flamm & Coulson 1988; Flamm et al. 1987; Furniss, R. L. & Carolin 1977: 397; Garraway 1986; Goldman & Parker 1978b; Graham 1939b; Haack 1985; Haack, Foltz, & Wilkinson 1984; Haack, Wilson, & Foltz 1987; Haack et al. 1987, 1989; Herrick 1935: 249; Hoffard & Coster 1976; Hoffmann & St. George 1949: 73; Hopkins 1893a: 138, 1893b: 212, 1894g, 1899c: 340, 422, 445; Hoppling, G. 1965f: 803; Kinn 1986b; Kinn & Roton 1989; Koch, P. 1972; Kowal & Ebel 1971; Lapis 1985, 1986; Lewis 1973; Mankins, J. 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- exesus* Say 1826: 255 (*Bostrichus*). Syntypes, sex?; presumably Pennsylvania [USA]; Say Collection, lost. Synonymy: LeConte 1876: 363.
- References: (**en**) Harris 1841: 74, 1842: 74, 1852a: 77, 1862: 87, 1890: 87. (**hb**) Harris 1841: 74, 1862: 87. (**ds**) Chapuis & Candeze 1852; Leng 1920: 341; Melsheimer 1806: 8; Perris 1876a: 254, 1877a: 414; Swaine 1909: 121. (**tx**) Chapuis & Candeze 1853; Eichhoff 1878b: 224; Ferrari 1867a: 47; LeConte 1868: 162, 1876: 363; Perris 1877a: 414; Say 1826: 255, 317; Swaine 1909: 121; Zimmermann 1868: 147.
- praemorsus* Eichhoff 1868a: 401 (*Tomicus*). Syntypes, sex?; Amerique boreali [USA]; Hamburg Museum, lost. Synonymy: LeConte 1868: 162, Eichhoff 1876a: 378.
- References: (**ds**) Gemminger & Harold 1872: 2691; Leng 1920: 341; Swaine 1909: 121. (**tx**) Eichhoff 1868a: 401, 1876a: 378, 1878b: 224; LeConte 1868: 162, 1876: 363; Swaine 1909: 121, 1918a: 112.
- interstitialis* Eichhoff 1869a: 273 (*Tomicus*). Holotype ♂; Jamaica; IRSNB, Brussels. Synonymy: Hopping 1965f: 803.
- Notes: (3) Lanier, Teale, & Pajares 1991 (cited as a subspecies [confirmation needed]).
- References: (**en**) Berrios, Menendez, & Rodriguez 1987; Browne 1968b: 365; Caleda & Veracion 1959, 1960; Perez 1975: 29; Schwerdtfeger 1956b: 38, 1960b: 258; Tzankov et al. 1974: 12. (**ec**) Furniss, R. L. & Carolin 1977: 398; Lindquist, E. E. 1969c. (**hb**) Browne 1968b: 365; Furniss, R. L. & Carolin 1977: 398; Perez 1975: 29; Schwerdtfeger 1956b: 38. (**ds**) Berrios, Menendez, & Rodriguez 1987; Blackwelder 1947; Blandford 1898b: 187; Browne 1962c: 201, 1968b: 365, 1979: 86; Caleda & Veracion 1950: 1–2, 1959: 1–3, 1960: 1–6, 1963: 18; DeLeon 1938, 1942a; Ferrer 1942; Furniss, R. L. & Carolin 1977: 398; Gemminger & Harold 1872: 2691; Gowdey 1926: 27; Hagedorn 1910d: 55; Kleine 1913b: 128, 1914b: 362, 379; Schedl 1963c: 159, 1966b: 42, 1966f: 78, 1969a: 204, 1972g: 40; Schwerdtfeger 1960b: 258. (**tx**) Blandford 1898b: 187; DeLeon 1938; Eichhoff 1869a: 273, 1878b: 228; Hagedorn 1910a: 105; Hopping, G. 1963c: 514, 1965f:

- 803; Lanier 1987a: 108; Lanier, Teale, & Pajares 1991; Perez 1975: 33–34; Schedl 1940a: 349, 1955g: 36.
- ponderosae* Swaine 1925b: 197. Holotype ♂: Coconino N. F., Arizona [USA]; CNCI, Ottawa. Synonymy: Hopping 1965f: 803. Notes: (3) Lanier, Teale, & Pajares 1991 (cited as a subspecies [confirmation needed]).
- References: (ay) Schonherr 1970b. (bv) Jacobson 1965, 1972; Kliefoth, Vite, & Pitman 1964: 283–290; McMullen & Atkins 1962b: 1321; Schonherr 1970b; Vite & Gara 1962: 251–273; Wood, D. L. 1961b: 187–188. (cn) Anonymous 1939: 644, 1958a: 6, 1960i, 1960j: 18, 1963j; Bongberg 1962; Doane et al. 1936; Hopkins 1902c: 11; Hornilbrook 1936: 620–622; Keen 1938: 112, 1952c: 146; Ostmark 1956: 8; Patterson 1930: 3; Price 1958: 61; Schuder 1969: 80; Tunnock 1963: 10. (cc) Hirschmann & Wisniewski 1982, 1983; Hunter & Davis 1963; Hurlbutt 1967; Keen 1938: 112; Lindquist, E. E. 1969c; Massey 1961: 357, 1962: 67–75, 1966a, 1966c: 424; Mathre 1964: 342–362, 1966; Patterson 1930: 3; Poinar 1975: 163. (hb) Bongberg 1959a; Chamberlin 1939: 417; Doane et al. 1936; Hopkins 1902c: 11; Keen 1938: 112, 1952c: 146. (ds) Anonymous 1958a: 6, 1963j; Bongberg & Bennett 1960: 1; Chamberlin 1939: 417; Keen 1929a: 37, 1938: 112, 1952c: 146; Kleine 1934a: 151; Leng & Mutchler 1933: 53; Schuder 1969: 80. (tx) Bright 1967b: 676; Chamberlin 1939: 417; Hopping, G. 1963c: 514, 1965f: 803; Keen 1929a: 37; Lanier 1972: 379, 1977: 379; Lanier, Teale, & Pajares 1991; de Ruette 1970: 103; Schedl 1955g: 36; Swaine 1925b: 197; Wood, D. L. 1961b: 188. (ms) Bongberg 1959a; Kliefoth, Vite, & Pitman 1964.
- cembrae* (Heer) 1836: 28 (*Bostrichus*). Syntypes, sex²; presumably Europe; not located.
- Figures: Balachowsky 1949b: 264, 274, Barbey 1925: pl. 5, fig. 1, Bevan 1987: 114, Hasek 1961: 5, Nakane et al. 1963: pl. 192, Nobuchi 1974: pls. 2–3, Pfeffer 1989a: pl. 12, Stanek 1969: 258, Yin, Huang, & Li 1984: 134.
- Distribution: Asia (Heilongjiang, Jilin in China/ Japan/ Korea/ Kuril Islands/ Taiwan/ Sakhalin Island, Siberia in E USSR), Europe (Austria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Netherlands/ Norway/ Poland/ Scotland/ Sweden/ Switzerland/ W USSR).
- Hosts: *Larix* spp., rare in *Abies*, *Pinus*.
- Notes: Fuchs 1913: 82 (described form *engadinensis*, no status; synonymy in Schedl 1950a: 83).
- References: (ay) Balogun 1969b: 1267–1270, 1969d: 158–161; Escherich 1923b; Feytaud 1950a; Fuchs 1911a; Nunberg 1950a: 135; Schimitschek 1926: 65; Schonherr 1970b; Wichmann 1912a: 10.
- (bv) Birgersson et al. 1984: 1049; Grune 1979: 149; Inscoe 1982; Klassen, Ridgway, & Inscoe 1982; Kohle et al. 1988; Koizumi, Yamaguchi, & Akita 1971; Luitjes 1976; Numberg 1950a: 138; Nuorteva 1956c: 88; Prell 1926: 62, 1930c: 626; Rebenstorff & Franke 1982; Renwick & Dickens 1979; Schonherr 1970b; Schwerdtfeger 1981: 194; Stokley et al. 1978; Wichmann 1912a: 10. (cn) Anonymous 1948k: 3, 1977r, 1978i, 1979p, 1980g; Balogun 1970: 226–239; Barbey 1825: 355; Bevan 1964b, 1966, 1987: 123; Blatchford 1983: 30; Boocock 1959b; Browne 1968: 363; Butovitsch 1930: 15–17; Crooke 1955: 30; Crooke & Bevan 1956: 70, 1957: 21; Crooke, Bevan, & Davies 1961; Crooke & Kirkland 1956, 1960; Eckstein 1926: 378, 1930b; Escherich 1923b: 485, 614, 1932a; Feytaud 1950a; Gabler 1955; Grandi 1951; Györfi 1946: 195; Hasek 1955, 1961: 5; Hess & Beck 1914: 276, 1927: 332; Hopkins 1894c, 1894d, 1899c: 316; Inouye 1949a: 13, 100, 1949b, 1955; Jacentkovsky 1933: 271; Jahn 1952a: 98, 1959: 220; Joly 1976; Judeich & Nitsche 1895: 507; Kamp 1950; Keller 1903b: 41; Kholodkovskii 1912: 313; Koch 1913: 111; Koizumi, Yamaguchi, & Akita 1971; Komarek et al. 1931: 1–256; Konopka 1871: 35; Koppen 1882: 234; Luitjes 1974; Marie 1924: 328–330; Morschel 1972: 129; Nechleba 1923: 365; Nishiguchi 1957: 69–73; Nosek 1951: 106, 1952b: 96; Novak, V., Hrozinka, & Stary 1976: 77; Nusslin 1913: 268; Ohnesorge 1955: 279; Okida & Suzuki 1955; Pfeffer 1948a: 799; Phillips, D. H. & Bevan 1967: 6; Pierce, W. D. 1917: 69; Rebenstorff & Franke 1982; Rhumbler 1922: 310, 1927: 324; Schimitschek 1930d: 136, 1935b: 149, 1936b: 76, 1937c: 58, 1939b: 573, 1947g: 191, 1949c: 16, 1955a: 33, 91, 1955c: 89, 1956: 340, 1961a: 154; Schindler 1948a: 247–248; Schneeberg 1925: 498; Schwerdtfeger 1944a: 183, 1957a: 188; Shiraki 1952; Sinreich 1962; Skrzypczynska & Krol 1974; Stokley 1973, 1974, 1975a, 1975b, 1975c, 1976a, 1976b, 1977; Terasaki et al. 1987; Thalenhorst 1950: 90; Torka 1933: 120–121; Wachtl 1901: 379, 381; Wardle 1929: 323; Weber, H. 1926: 578; Weber, T. 1965; Wilke 1931: 665; Yamane 1981: 471; Zwölfer 1949: 400. (ec) Balogun 1969a, 1969c, 1970; Brauns 1950a; Chararas 1957d, 1959a, 1959c; Cooreman 1963: 45; Crooke & Kirkland 1956; DeLeon 1935a, 1935c; Fuchs 1937; Galoux 1947b; Gauss 1954a: 423; Györfi 1941b, 1943: 84, 1952b; Haeselbarth 1967; Hirschmann & Wisniewski 1982, 1983; Inouye 1950: 112; Inouye et al. 1955: 66; Kamijo 1981; Karpinski 1932a: 95; Kholodkovskii 1897: 118; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1980b, 1983; Kleine 1908c: 214, 1944: 77; Koluhajiv 1954: 22; Komarek 1925b: 863; Koyama 1963; Krivosheina 1974; Kudon 1979b; Kuhn 1949a: 265; Lindquist, E. E. 1969c; Luitjes 1976; Mahunka 1968; Merker &

- Adlung 1958: 325; Nechleba 1923: 365, 1929a: 26; Nishiguchi 1959: 271, 1960c; Nosek 1951: 106, 1952b: 96; Nuorteva 1957b: 52, 1959d: 193; Nusslin 1927: 324; Perris 1856a: 243; Pfeffer 1923a: 332, 1943b: 179, 1952a: 159; Poinar 1975: 161; Redfern 1989; Redfern et al. 1987; Reisch 1972; Ruhm 1956b: 4; Scheucher 1959: 263; Schimitschek 1930a: 253–344, 1930e: 119, 1936a: 559, 1948c: 129, 1955a: 33, 91, 1964e; Schremmer 1956: 217; Schvester 1957b: 138; Schwerdtfeger 1944a: 183, 1957a: 188; Sedlaczek 1904: 359, 1935a: 163; Seitner 1913a: 27, 1924: 22; Singh 1977: 100; Thompson, W. R. 1943: 58; Thompson, W. R. & Simmonds 1964: 23, 1965: 29; Wichmann 1955a: 94; Wilke 1931: 665; Wisniewski 1979b; Woodring & Moser 1970; Yanovskii 1986; Yasumatsu & Watanabe 1965: 69. **(hb)** Altum 1881c: 322; Anonymous 1948k: 3; Balogun 1969c: 141–148, 1970: 226–239; Barbey 1901: 10, 24, 82, 1925: 355, 1942; Beffa 1949; Bevan 1987: 123; Bischoff-Ehinger 1873: 160–162, 1874; Brandt 1948; Browne 1968: 363; Budkov 1897; Butovitch 1930b; Ceconni 1924; Chararas 1962c: 206; Charvat 1950; Dombrowsky 1887, 1892; Eckstein 1897, 1926: 578; Eichhoff 1881a: 49, 214–215, 1881d: 434, 1882e: 325; Escherich 1923b: 485, 614; Fankhauser 1884: 5; Feytaud 1950a; Fuchs 1904a, 1905c: 340, 1906c, 1907: 48; Gabler 1955; Grandi 1951; Györfi 1957; Henschel 1882b, 1885b, 1889: 485, 1895a: 181; Hess & Beck 1914a: 276, 1927: 332; Hopkins 1899c: 316; Hufnagl & Puzyr 1951: 108, 119; Inouye et al. 1955: 66; Joly 1976; Judeich & Nitsche 1895: 507; Karpinski & Strawinski 1948: 157; Keller 1885: 289, 1890: 267, 1903a: 337, 1907a: 180, 1910: 5; Kholodkovskii 1912: 313; Koizumi, Yamaguchi, & Akita 1971; Komarek 1925a: 102; Koppen 1880: 254; Lengerken 1939: 72, 1954: 93; Louzil 1961: 45; Luitjes 1974, 1976; Lunardoni & Leonardi 1889: 468; Merker & Adlung 1958: 325; Morschel 1972: 129; Niisima 1908b: 18; Nordlinger 1870a: 186; Novak, V., Hrozinka, & Stary 1976: 77; Numberg 1929: 115; Nuorteva 1956c: 88; Nusslin 1913: 268, 1927: 324; Ohnesorge 1955: 279; Perris 1856a: 243; Pfeffer 1941b: 18, 1941c: 5, 1952a: 159, 1989a: 76; Postner 1974: 458; Prell 1926: 62, 1930c: 626; Rhumbler 1922: 310, 1927: 324; Rupertsberger 1879: 231, 1880: 230; Schedl 1981b: 92; Schimitschek 1930a: 253–344, 1948c: 129, 1955a: 33, 91; Schneider-Orelli 1947b: 157; Schvester 1957b: 138; Schwerdtfeger 1944a: 183, 1957a: 188, 1981: 194; Sedlaczek 1935a: 163; Seiff 1927: 34; Spessivtsev 1913a: 76, 1923: 209; Stanek 1968: 258; Stark 1952: 405; Stebbing 1909b: 24; Stoakley 1975c, 1976b, 1977; Wachtl 1876a: 453, 1901: 379, 381; Weber, H. 1926: 578. **(ds)** Acloque 1896; Ammann & Knabl 1913; Angus 1964: 179; Anonymous 1977r, 1978i, 1979p, 1980g; Arri, Covassi, & de Bellis 1966: 32; Balogun 1969d; Barthe 1896; Bau 1888; Beffa 1949, 1961; Blanchiere & Robert 1889; Blandford 1894c; Brakman 1966b: 206; Browne 1968: 363; Budkov 1897; Calwer 1884, 1893; Chapuis & Candeze 1853; Charvat 1950; Cho 1957; Choo 1983: 94; Choo & Woo 1985: 165; Crooke 1955c, 1962; Crooke & Bevan 1957; Crooke & Kirkland 1960; Dietrich 1877; Endrodi 1958b; Escherich 1923b: 485, 614; Fauvel 1885; Favre 1890; Fleischer 1921b; Fuchs 1904a, 1905a, 1905c: 340, 1906c, 1907: 48, 1913; Gaubil 1849: 126; Gemminger & Harold 1872: 2690; Gozis 1875: 80; Gredler 1866: 374, 1868, 1869: 73; Grouzelle 1905; Grune 1979: 149; Györfi 1941b; Hagedorn 1910d: 51; Heller 1881: 173; Hennig 1954: 257; Henschel 1895a: 181; Heyden 1881: 177, 1893: 177; Heyden, Reitter, & Weise 1883: 182, 1885: 300, 1891: 672, 1906: 712; Hirsch 1930; Horion 1951; Inouye 1949b; Jacentkovsky 1933: 271, 1939: 77; Jamnicky 1960a; Joly 1976; Judeich & Nitsche 1895: 507; Karpinski 1932a: 95; Karpinski & Strawinski 1948: 157; Kaszab 1977: 67; Keller 1910: 5, 1920: 13; Kiefer & Moosbrugger 1942: 529; Klefbeck & Sjøberg 1960: 232; Kleine 1912a: 128, 264, 268, 1913a: 35, 1913b: 127, 1914b: 250, 257, 1934a: 150; Ko 1969: 279; Kolubajiv 1934: 64; Komarek 1925b: 863; Koppen 1882: 234; Kraatz 1869: 59; Ku, K. 1964; Kurir 1947c: 10; Lindberg 1959: 31; Lomnicki 1913b: 148; Lucht 1987: 279; Lunardoni & Leonardi 1889: 468; Lundberg 1988; Massee & Gardener 1962; Murayama 1929b: 2, 1929c: 23–24, 1930a: 1, 5, 1930b: 16, 1936a: 129, 1936b: 115, 1937b: 374, 1939: 141–142, 1940a: 232, 1942a: 56, 1948: 2, 1949a: 13, 1951c: 4, 1954b: 170, 1955: 104; Nakane et al. 1966: 383; Negru 1966b: 404, 1968a: 457; Niisima 1908b: 18; Nobuchi 1966d: 35, 1967: 24, 1974: 50; Numberg 1928b: 88, 116, 1954: 86; Penecke 1927: 235; Perris 1876a: 254, 1877a: 414; Pfeffer 1930b: 120, 1931b: 76, 1932a: 19, 1942c: 448, 1947e: 2, 1950b: 75, 1989a: 76; Pierce, W. D. 1917: 69; Pittioni 1943: 175; Postner 1974: 458; Reitter 1894a: 80, 1916: 304; Rossem, Burger, & Van de Bund 1975; Roubal 1941: 272; Sainte-Claire & Mequignon 1938: 448; Sawamoto 1940a: 95, 105; Schaufuss 1915: 1248; Schaum 1859: 96, 1862: 101; Schedl 1971f: 147, 1980a: 28, 1981b: 92; Schilsky 1909: 188; Schremmer 1955: 217; Schwerdtfeger 1981: 194; Shiraki 1952; Skrzypczynska & Krol 1974; Stark 1936e: 142, 1952: 405; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 444; Stierlin & Cantard 1871: 293; Tahvanainen 1967; Torka 1933: 120; Tredl 1907: 15; Wachtl 1876a: 453; Wichmann 1927a: 77–78, 1955a: 94; Wilke 1931: 665; Winter, T. C. 1983: 41. **(tx)** Acloque 1896; Balachowsky 1949a: 267; Balogun 1970: 231, 235; Barbey 1901: 10, 24, 82; Beffa 1949, 1961; Bertolini 1872; Bevan 1987: 114; Blandford 1894d; Chapuis & Candeze 1853; Charvat 1950; Choo 1983: 94; Doebner 1862: 174, 1876; Dombrowsky 1887, 1892; Eggers 1915: 96–97, 1922: 205,

1944c: 140–141; Eichhoff 1864: 42, 1868d: 419, 1872d: 138, 1877b: 118, 1878b: 234, 1881a: 49, 214, 1883a: 112, 137; Endrodi 1957a: 304, 1957b; Escherich 1923b: 485, 614; Fanvel 1885, 1889; Ferrari 1867a: 42, 46, 1867b: 114; Fleischer 1927; Formanek 1907: 41; Fuchs 1911a, 1913; Gabler 1955; Gebien 1907: 197; Grune 1979: 149; Hagedorn 1904d, 1910a: 104; Hasek 1961: 5; Heer 1836: 28; Henschel 1882a: 97–98, 1895a: 181; Heyden 1893: 177; Hopping, G. 1963b: 63; Houlbert 1922a: 12; Joly 1976; Judeich & Nitsche 1895: 507; Kalina 1969; Karpinski & Strawinski 1948: 157; Koch 1913: 11, 1928: 89, 1932: 139; Kuhn 1913: 1057; Lucht 1987: 279; Lmardoni & Leonardi 1889: 468; Motschulsky 1860a: 155; Murayama 1929: 23–24, 29, 1936a: 129, 1937b: 374, 1939: 141, 1940a: 232, 1954b: 170, 1955: 104; Nakane et al. 1963: 383, pl. 192; Negru 1966b: 404; Niisima 1910a: 11; Nobuchi 1966d: 35, pl. 5, 1974: 50, pl. 2–3; Nordlinger 1870a: 186; Novak, V., Hrozinka, & Stary 1976: 77; Numberg 1930, 1947: 99–108, 1954: 86; Perris 1877a: 414; Pfeffer 1932b: 26, 1941b: 18, 1941c: 5, 1942: 447–462, 1947e: 2, 1955a: 248, 1989a: pl. 12; Portevin 1935: 337; Postner 1974: 458; Quaschik 1953: 35; Ratzeburg 1837: 188; Redtenbacher 1874: 378; Reitter 1894a: 80, 1913a: 104, 106, 1916: 304; Rhumbler 1922: 310, 1927: 324; Rupertsberger 1879: 231, 1880: 230; Sawamoto 1940a: 95, 105; Schedl 1934f: 1644–1645, 1941a: 42, 1950a: 83–85, 1953e: 22, 1980a: 28, 1981b: 92; Schimitschek 1926: 65–75, 1930: 253–344, 1937c: 58, 1955c: 89; Spessivtsev 1913a: 76; Stanek 1969: 258; Stark 1952: 405; Stebbing 1909b: 24; Stierlin 1898: 444; Teplouchow 1890: 254; Wachtl 1882: 34–35, 1895: 8; Weber, L. 1912: 31. (**ms**) Balogun 1969a; Bevan 1964b; Boocock 1959b; Crooke & Bevan 1960; Crooke, Bevan, & Davies 1961; Eggers 1911b; Eichhoff 1868d: 419; Kalandra 1971: 106; Schimitschek 1930f: 406; Sedlacek 1904: 359, 1913: 455; Seitner 1913a: 27; Sinreich 1962; Weber, L. 1912: 31; Yamane 1981: 471.

subelongatus Motschulsky 1860a: 155 (*Tomicus*).

Syntypes, sex²; Daourie meridionale to Sea of Japan; not located. Synonymy: Schedl 1950a: 83. References: (**ay**) Gusteleva 1979; He, Li, & Fu 1988. (**bv**) Fu et al. 1988; Greckin 1960, 1962a; Manaev 1986; Qiu et al. 1988; Rozhkov 1970: 152; Vitzthum 1926: 407–503; Yanovskii & Kiselev 1981; Yu & Zhang 1988. (**cn**) Esterberg 1959; Greckin 1962a; Gusteleva 1960b, 1982; Isaev & Khlebopros 1973; Kontkanen 1932: 62; Koppen 1882: 237; Kurenzov 1935c: 188, 1956a: 87; Lin et al. 1989; McFadden et al. 1982; Nestertschuk 1930: 173; Vitzthum 1926: 407–503; Yanovskii 1981; Yanovskii & Kiselev 1981; Yanovskii & Korotkov 1984; Yu, Guo, & Cheng 1984; Zhang et al. 1958: 28. (**ce**) Cooreman 1963: 46; Greckin 1960, 1962a; Gusteleva 1976, 1979a, 1979b, 1980a: 78–80,

1980b, 1982, 1984a, 1984b; Hughs & Jackson 1958: 70; Korenchenko 1980a, 1980b, 1987a; Kostin 1964: 124; Pleshanov 1966: 124–126; Poinar 1975: 164; Shirskaya 1961; Wisniewski 1984; Woodring 1966c: 133; Woodring & Moser 1970; Yanovskii 1966, 1977b; Yanovskii & Korotkov 1984. (**hb**) Budkov 1897; Greckin 1962a: 552; Gusteleva 1976, 1979a, 1979b; Isaev & Khlebopros 1973; Kostin 1960: 135; Kozlov 1966; Krivolitskaya 1956: 835, 1960, 1973: 142; Kurenzov 1935a: 19, 43, 1948b: 103, 1950d: 216; Petrenko 1966; Rozhkov 1970: 152; Rudnev 1958: 370; Spessivtsev 1923: 209; Stark 1952: 405; Yanovskii & Kiselev 1981; Yu, Guo, & Cheng 1984. (**ds**) Arnoldi et al. 1955: 722; Belonov 1916, 1917: 335; Budkov 1897; Esterberg 1959; Florov 1949: 110; Gemminger & Harold 1872: 2691; Greckin 1962a; Hagedorn 1910d: 59; Hansen 1939; Hellen 1947; Heyden 1898: 77; Isaev 1961: 33–47, 1962, 1967: 64–68; Keler 1922: 269–276, 1925b: 274; Klefbeck & Sjoberg 1960: 232; Kleine 1913b: 128, 1914b: 248, 1934a: 151; Kontkanen 1932: 62; Koppen 1882: 237; Krivolitskaya 1956: 835, 1960, 1965a: 240, 1973: 142, 1983; Kurenzov 1935a: 19, 43, 1935c: 188, 1936a: 113, 1938a: 65, 1950: 215, 1957b: 19, 1965, 1967; Lacordaire 1866: 383; Mandl 1931: 25; Nestertschuk 1930: 159–182; Nuorteva 1955a: 32, 1971: 71; Pittioni 1943: 176; Reitter 1894a: 81; Rozhkov 1970: 152; Sokanovskii 1960; Stark 1926b: 105, 1926g: 154, 1931d: 550, 1952: 405; Strand 1946: 604; Yanovskii 1974, 1977a, 1989: 64; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 412; Yin, Huang, & Li 1984: 133; Zinovjev 1955: 191. (**tx**) Eggers 1915a: 96–97; Ferrari 1867a: 47; Hagedorn 1910a: 106; Krivolitskaya 1956: 835, 1958: 178; Kurenzov 1941a: 204, 1948b: 103; Lacordaire 1866: 383; Motschulsky 1860a: 155; Reitter 1894a: 81, 1913a: 106; Schedl 1950a: 83; Sokanovskii 1960: 677; Spessivtsev 1931: 74; Stark 1952: 405; Yin, Huang, & Li 1984: 133. (**ms**) Gusteleva 1971, 1979a, 1979b; McFadden et al. 1982; Stark 1958: 234.

fallax Eggers 1915: 96. Lectotype ♂; Convergence Irkutsk; USNM, Washington, designated by Anderson & Anderson 1971: 13. Synonymy: Schedl 1950a: 83.

References: (**cn**) Kurenzov 1956a: 91. (**cc**) Kurenzov 1934a: 50. (**ds**) Florov 1949: 113; Kurenzov 1934a: 50, 1936a: 113, 1936b: 351, 1938a: 65, 1951b: 19; Mandl 1931: 25; Stark 1931d: 551. (**tx**) Anderson, W. H. & Anderson 1971: 13; Eggers 1915: 96, 1922c, 1931: 41; Schedl 1934f: 1645, 1950a: 83; Spessivtsev 1931: 74; Stark 1952: 394.

shinanoensis Yono 1924: 2. Syntypes, sex²; Japan; not located. Synonymy: Sawamoto 1940: 105.

References: (ds) Sawamoto 1940a: 95, 105.
(tx) Sawamoto 1940a: 95; Yono 1924: 2.

chinensis Kurenzov & Kononov 1966: 31. Holotype ♂; Yunnan Province; ISBN, Novosibirsk, USSR.

Distribution: Asia (Yunnan in China).

Hosts: *Pinus yunnanensis*.

References: (tx) Kurenzov & Kononov 1966: 31.

concinus (Mannerheim) 1852: 358 (*Bostrichus*). Lectotype, sex?; Sitka Island [Alaska]; MZU, Helsinki.

Figures: Hopping 1963d: 1093.

Distribution: North America (Alaska/ British Columbia in Canada/ California, Oregon, Washington in USA).

Hosts: *Picea sitchensis*.

References: (ay) Oester & Rudinsky 1975, 1979; Payne et al. 1973; Thomas, J. B. 1967; Ting 1936: 96. (bv) Barr, B. A. 1969: 641; Daterman, Rudinsky, & Nagel 1965; Oester & Rudinsky 1975, 1979. (cn) Browne 1968b: 363; Chamberlin 1924; Compere 1915: 574; Currie 1905: 73; Doane et al. 1936; Essig 1926: 520, 1958: 513; Hatch 1938: 194; Hopkins 1904a: 17, 1915: 54; Keen 1929: 44, 1938: 128, 1952c: 165; Ruppel 1967: 54; Schuder 1969: 78; Schwerdtfeger 1956b: 34; Swaine 1918a: 107, 111. (ec) Chamberlin 1918a; Deyrup & Gara 1978: 275; Furniss, R. L. & Carolin 1977: 387; Keen 1938: 128; Kinn 1971; Lindquist 1969c; Schedl 1958d: 187. (hb) Bright 1976d: 155; Bright & Stark 1973: 85; Browne 1968b: 363; Chamberlin 1939: 415, 1958: 165; Daterman, Rudinsky, & Nagel 1965; Doane et al. 1936; Essig 1926: 520, 1958: 513; Furniss, R. L. & Carolin 1977: 387; Holsten, Werner, & Laurent 1980; Hopkins 1904a: 17; Keen 1929c: 44, 1938: 128, 1952c: 165; Pierce, W. D. 1907: 292; Richmond & Kinghorn 1951: 31; Schwerdtfeger 1956: 34; Swaine 1918a: 107, 111; Trimble 1924: 358; Wood, S. L. 1982b: 673. (ds) Blackvelder 1947: 782; Blandford 1898b: 186, 188; Bright 1976d: 155; Bright & Stark 1973: 85; Browne 1968b: 363; Chamberlin 1917, 1918a: 15, 1925, 1939: 415, 1958: 165; Choo & Woo 1983; Currie 1905; Essig 1926: 520, 1958: 513; Evans, D. 1983: 33; Ferrer 1942; Furniss, R. L. & Carolin 1977: 387; Gemminger & Harold 1872: 2690; Hagedorn 1910d: 52; Hamilton 1894a: 35; Henshaw 1885: 148; Hopping, G. 1963d: 1094; Hopping, R. 1922; Keen 1929: 44, 1929a: 37, 1938: 128, 1952c: 165; Kleine 1912a: 218, 1913b: 127, 1914b: 390, 1934a: 150; Leng 1920: 341; Murayama 1957a: 37; Patterson & Hatch 1945: 153; Ruppel 1967: 54; Schedl 1963c: 159, 1969a: 203, 1977e: 43; Schuder 1969: 78; Schwarz 1886: 92; Swaine 1909: 121; Wood, S. L. 1957c: 397, 1972a: 419, 1982b: 673. (tx) Blandford 1898b: 186, 188, 189Sc: 6; Bright 1976d: 155; Chamberlin 1939: 415, 1958: 165; Eichhoff 1878b: 232; Evans, D. 1983: 33; Hagedorn 1910a: 104; Hatch 1927: 302;

Hopkins 1905b: 75, 1915e: 54; Hopping, G. 1963b: 62, 1963c: 510, 1963d: 1092–1096; Keen 1929a: 37; LeConte 1857: 22, 1868: 164, 1876: 363, 367, 1878: 625; Mannerheim 1852: 358, 1853: 234; Schedl 1940a: 349, 1955g: 33, 1960g: 6–7; Schwarz 1886: 42; Swaine 1909: 121, 1918a: 107, 111, 1925: 196–197; Thomas, J. B. 1967; Wood, S. L. 1957c: 397, 1972a: 419, 1982b: 673. (ms) Essig 1931: 699; Hatch 1938: 194.

hirsutus Eichhoff 1868a: 402 (*Tomicus*). Syn-types, sex?; Sitka [Alaska]; Hamburg Museum, lost. Synonymy: Eichhoff 1878b: 233.

References: (ds) Gemminger & Harold 1872: 2690; Henshaw 1885: 148; Leng 1920: 341; Swaine 1909: 122. (tx) Blandford 1898b: 188; Eichhoff 1868a: 402, 1878b: 233; Schedl 1955g: 34; Swaine 1909: 122, 1918a: 111.

chamberlini Swaine 1925: 196. Holotype ♀?; Astoria, Oregon [USA]; CNCI, Ottawa. Synonymy: Wood 1957c: 397.

References: (cn) Doane et al. 1936; Hatch 1938: 194. (hb) Chamberlin 1939: 415; Doane et al. 1936. (ds) Chamberlin 1925, 1939: 415; Keen 1929a: 37; Kleine 1934a: 150; Leng & Mutchler 1933: 53. (tx) Bright 1967b: 675; Chamberlin 1939: 415; Keen 1929a: 37; de Ruelle 1970: 102; Schedl 1955g: 34; Swaine 1925b: 196–197; Wood, S. L. 1957c: 297. (ms) Hatch 1938: 194.

confusus (LeConte) 1876: 364 (*Tomicus*). Lectotype ♀; southern California [USA]; MCZ, Cambridge, lectotype designated by Wood 1982b: 703. Figures: Borden & Wood 1966: 257, 259, White 1983: 331–332.

Distribution: North America (Baja California Norte, Chihuahua in Mexico/ Arizona, S California, Colorado, Nevada, New Mexico, W Texas, Utah, Wyoming in USA).

Hosts: *Pinus edulis*, *P. monophylla*, rarely other *P.* spp.

Notes: (3) Most California citations of this name prior to 1970 actually refer to *paraconfusus*; records published as *paraconfusus* that actually pertain to *confusus* are listed here under *confusus*.

References: (ay) Atkins 1966b: 983; Barr, B. A. 1969: 641; Bhakthan, Borden, & Nair 1970; Bhakthan, Nair, & Borden 1969, 1971; Borden 1966b: 219, 1967: 1165, 1968; Borden & Slater 1968: 366–368, 1969a: 29–32; Borden & Wood 1966; Lyon 1955: 482; Payne et al. 1973; Pitman & Vite 1963; Renwick, Pitman, & Vite 1966; Schouherr 1970b; Thomas, J. B. 1967; Vite & Pitman 1968: 169–170; Wood, D. L. 1961: 187; Wood, D. L. & Stark 1966. (bv) Annala 1971a: 13; Ashraf & Berryman 1969: 6; Barlow 1966; Barr, B. A. 1969: 641; Bedard, W. L., Jr. 1964b, 1965: 77–81; Bhakthan, Borden, & Nair 1970; Birch 1978b; Birch et al. 1977; Birgersson et al. 1984: 1049; Borden 1966b, 1967, 1968: 10–13; Borden,

- Brownlee, & Silverstein 1968: 635; Borden, Nair, & Slater 1969: 1626–1627; Borden, Silverstein, & Brownlee 1968: 600; Borden & Wood 1966: 253–261; Cameron & Borden 1967: 236–244; Chararas 1980a; Dyer & Taylor 1968: 775; Franklin 1968; Gara 1963: 51, 1965b: 4891–4892; Gara & Vite 1962: 275–287; Goeden & Norris 1965b: 774; Hertel, Hain, & Anderson 1969: 1086; Inscoc 1982; Inscoc & Beroza 1976: 147; Jacobson 1965, 1972; Katzenellenbogen & Lenox 1973: 331; Kikuchi & Ogura 1976; Klassen, Ridgway, & Inscoc 1982; Kliefoth, Vite, & Pitman 1964: 283–290; Kozłowski 1969: 121; McMullen & Atkins 1962b: 1321; McNew 1970; Miller & Keen 1960: 105; Payne & Wood 1981: 492; Pitman 1965c: 598, 1966a: 147–157; Pitman, Kliefoth, & Vite 1966: 13–17; Pitman, Renwick, & Vite 1966: 243–250; Pitman & Vite 1963: 221–226; Pitman, Vite, & Renwick 1966: 46–47; Reece et al. 1968: 4249–4256; Renwick, Pitman, & Vite 1966: 83–84; Rice 1969a: 382–386, 1969b: 189–194; Schmitz 1972: 1725; Schneider & Rudinsky 1969: 1182; Schonherr 1970b; Shorey & Gaston 1967; Silverstein 1969, 1970a, 1970b; Silverstein & Rodin 1965; Silverstein, Rodin, & Wood 1966, 1967: 944–949; Silverstein & Young 1976: 21; Silverstein et al. 1966: 509–510, 1929–1936; Stark, R. 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(cn) Amman & Rasmussen 1969: 631; Annand 1947: a21–22, 31, 1948, 1949; Anonymous 1955g: 30, 1958a: 8, 1959j: 2, 1960i, 1960j: 10, 1960k, 1960q, 1961e, 1961h, 1963j, 1963y, 1965b, 1966f, 1967f, 1967k, 1968g, 1972f, 1973b, 1983d; Barlow 1966; Bedard & Browne 1969: 1202–1203; Bongberg 1962; Browne 1968b: 364; Burke 1932: 366, 1933: 49–59, 1937: 28; Bushing & Wood 1964: 510; Calnaido 1965: 249–262; Celaya 1981; Chamberlin 1924; Currie 1905: 73; Doane 1927: 284–286; Doane et al. 1936; Essig 1913: 705, 1926: 520, 1958: 520; Flake & Germain 1970: 25; Frye 1971: 25; Hall 1946: 54, 62, 1958a: 341–347; Hawthorne 1964, 1965b; Hopkins 1904a: 18, 1905: 77; Hopping, R. 1915: 183; Hoyt 1950: 15; Hutson et al. 1933: 291–304; Keen 1929: 45, 1938: 112–113, 1952c: 146–147; Licht 1966: 31; Licht & Moore 1963: 19; Lyon 1959a: 1, 1959b: 323, 1965: 1–59, 1969, 1971; Lyon & Shea 1967: 1–5; Lyon & Swain 1968: 1–4; Lyon & Wickman 1960: 1–7; Massey 1959: 132; McArdle 1957: 16; Miller 1929: 994; Miller & Keen 1960: 105; Moore 1955: 478, 1957: 448–450; Osborne 1962: 1–6; Packard 1890: 713; Patterson 1923, 1927c: 1–9; Payne & Wood 1981: 492; Pearson 1950: 154–155; Ragenovich 1979, 1980b: 22; Rice 1969b; Rosecrans 1947: 8; Rudinsky & Terriere 1959: 485; Ruhm 1964; Salnan 1933a: 131–137, 1938a: 613, 1938b: 119–123; Schuder 1969: 78; Schwerdtfeger 1956b: 42; Smith, A. 1981; Stark, R. 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- duplicatus** (Sahlberg) 1836: 144 (*Bostrichus*). Syn-types, sex?; Finland; not located.
Figures: Balachowsky 1949a: 266, Grune 1979: 146, Nobuchi 1974: pl. 2–3, Pfeffer 1989a: pl. 10, Tsai & Li 1959: 99.
- Distribution: Asia (Heilongjiang in China/ Japan/ Sakhalin Island, Siberia in E USSR), Europe (Austria/ Czechoslovakia/ Finland/ France/ Germany/ Hungary/ Norway/ Poland/ Sweden/ W USSR).
Hosts: *Picea excelsa*, *P. jezoensis*, *P. koraiensis*, *P. obovata*, rare in *Pinus densiflora*, *P. sylvestris*.
References: **(ay)** Escherich 1923b: 465; Fuchs 1911a; Negru 1968b: 802; Nunberg 1950a: 138; Schonherr 1970b. **(bv)** Annala & Petaisto 1978; Bakke 1975, 1979c; Balazy 1968; Ellefsen 1980e; Gayvalis & Kajaitis 1981; Grune 1979: 147; Inscoe 1982; Kinelksi 1958: 74; Klassen, Ridgway, & Inscoe 1982; Mozolevskaya, Lebedeva, & Galaseva 1979; Nunberg 1950a: 168; Nuorteva 1956c: 23; Rozhkov 1970: 150; Schonherr 1970b; Selander & Nuorteva 1980; Silverstein & Young 1976: 21; Zotova 1987. **(cn)** Anonymous 1948k: 4; Ass & Funtikow 1941; Balazy 1968; Berdennikova 1954; Chrystal 1922, 1949b: 3–11; Ehnstrom et al. 1974; Elfving 1904; Escherich 1917: 97–115, 1923b: 465; Esterberg 1959; Fleischer 1875c, 1877a; Goryacheva & Andre-Eva 1961: 162–164; Grandi 1951; Hanson, H. S. 1940a; Herlein 1878; Ishikura 1966; Judeich & Nitsche 1895: 498, 1327; Juutinen 1960: 27; Kalandra 1953a; Kangas 1939, 1947: 1–192, 1958d: 164, 1966b; Kozikowsky 1929: 253; Kurenzov 1935c: 188; Lekander 1954b: 16; Lekander, M. 1951: 105; Lozovoi 1950c: 308; Mathiesen 1952: 299; Mathiesen-Kaarik 1953: 11; McFadden et al. 1982; Nestertschuk 1930: 176; Nuorteva 1955c: 1; Nusslin 1913: 273; Pfeffer 1949b: 147; Pierce, W. D. 1917: 69; Rhumbler 1927: 325; Rudnev 1966; Saalas 1949: 344, 392; Selander & Nuorteva 1980; Sierpinski 1958: 69; Titova 1966; Troitskii 1968: 40–43; Wichmann 1927b: 374. **(ec)** Annala & Petaisto 1978; Ass & Funtikow 1941; Balazy 1968; Balazy & Michalski 1960; Branmanis 1938, 1940; Chararas 1959a; Fleischer 1875c, 1877a; Galoux 1947b; Graham 1969: 867; Heqvist 1963: 155; Kangas 1939, 1946b: 21, 1954a: 48; Karpinski 1932a: 95, 99; Kleine 1908c: 214, 1944: 70; Kostin 1964: 120; Kurenzov 1964: 20; Lindquist, E. E. 1969c; Mathiesen 1952: 299; Mathiesen-Kaarik 1953: 11; Melnikova 1960: 19–45; Michalski & Ratajczak 1989; Mozolevskaya, Lebedev, & Galaseva 1979; Nuorteva 1956a: 17, 1957b: 52, 1959d: 201, 1967a, 1968a, 1970; Nusslin 1927: 630; Palmen 1944: 60, 1946: 195; Pettersen 1976b; Pfeffer 1949b: 147; Poinar 1975: 161; Redikortzev 1947: 249; Saalas 1917a: 18, 1928: 649, 1930: 118, 1949: 344, 392, 1951: 14; Slankis 1972; Szczepanski 1960a: 410; Teplouchow 1890: 263; Thompson, W. R. 1943: 59; Titova 1966; Wachtl 1879: 51, 1886: 53; Wiackowski 1957a: 80, 1957b: 312; Zimovjev 1957: 348, 1958: 391; Zolk 1935: 614–640, 1937: 147–172. **(hb)** Annala & Petaisto 1978; Anonymous 1948k: 4; Balazy 1968; Borodajewsky 1928, 1929b, 1930a: 157–159, 1930c: 805–811; Chararas 1962c: 217; Charvat 1950; Dombrowsky 1892; Elfving 1904; Escherich

- 1923b: 465; Fleischer 1875c, 1877a; Fuchs 1904a; Cornostaev 1916: 311; Grandi 1951; Gyorfi 1957; Henschel 1877b, 1878b, 1889: 485, 1895a: 183; Karpinski 1933b: 38; Karpinski & Strawinski 1948: 157; Kellner 1876b: 191; Kostin 1960: 135; Krivolutskaya 1956: 835, 1960; Kurenzov 1935a: 41, 1948b: 111, 1950d: 217; Lekander 1954b: 16; Lengerken 1939: 72, 1954: 93; Melnikova 1960; Michalski 1959a: 290; Mozolevskaya, Lebedeva, & Galaseva 1979; Nunberg 1946b: 3; Nuorteva 1956c: 23, 1967a, 1968a, 1970; Nusslin 1913: 273, 1927: 630; Opamasenko & Kononenko 1966; Pfeffer 1941c: 7; Postner 1974: 445; Rhumbler 1927: 325; Rinski-Korsakov et al. 1949: 291; Rozhkov 1970: 150; Saalas 1913a: 69, 89, 1949: 344, 392, 1951: 14; Schedl 1981b: 90; Schnaider 1954: 173; Schnaider & Sierpinski 1955: 60; Shishov 1928a: 673; Spessivtsev 1913a: 75, 1921a, 1921b: 221–223, 1923: 204; Stark 1926a: 337, 1952: 399; Wachtl 1876a: 455; Wichmann 1927b: 378; Zinovjev 1957: 348, 1958: 391. **(ds)** Balazy & Michalski 1960; Calver 1884, 1893; Charvat 1950; Endrodi 1955b; Escherich 1923b: 465; Esterberg 1928, 1959; Fauvel 1885; Florov 1949: 264; Fuchs 1904a; Gemminger & Harold 1872: 2690; Gornostaev 1917: 308–315; Grill 1895: 310; Grune 1979: 147; Hagedorn 1910d: 52; Hansen, V. 1939; Hellen 1947; Henschel 1895a: 183; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 712; Hlawa 1870; Horion 1951; Ishikura 1966; Jacentkovsky 1912: 291; Jamnicki 1960a; Karpinski 1925: 217, 1926: 83, 1931: 18, 36, 1932a: 95, 99, 1933b: 38, 1935: 1–86; Karpinski & Strawinski 1948: 157; Keler 1925b: 274; Kellner 1876b: 191; Kinelski 1958: 74; Klefbeck & Sjöberg 1960: 232; Kleine 1912a: 268, 1913b: 127, 1934a: 150; Krivolutskaya 1956: 835, 1960, 1983; Kurenzov 1934a: 50, 1935a: 41, 1935c: 188, 1936a: 111, 1938a: 59, 1950: 217, 1951b: 19, 1964: 20; Lazorko 1963; Lomnicki 1904: 370, 1913b: 148; Lucht 1987: 279; Mandl 1931: 25; Munster 1922b: 134; Nobuchi 1974: 52; Nunberg 1928b: 88, 1954: 85; Nuorteva 1955a: 31, 1956b: 168, 1971: 71; Palm 1946: 122; Palmen 1944: 60, 1946: 195; Pfeffer 1931b: 76, 1947c: 4, 1950b: 73, 1959a: 75; Pierce, W. D. 1917: 69; Pittioni 1943: 176; Pomerantzev 1907b: 248, 493; Poppius 1900: 108; Postner 1974: 455; Rakhov 1961: 207–213, 1962; Redtenbacher 1874: 377; Reitter 1894a: 81, 1916: 304; Rinski-Korsakov et al. 1949: 291; Roubal 1941: 272; Rozhkov 1970: 150; Saalas 1913a: 69, 89, 1916: 91–95, 110–116, 1917a: 18, 1930: 118, 1931: 68; Sahlberg 1900: 105; Schaufuss 1915: 1249; Schaum 1862: 101; Schedl 1980a: 28, 1981b: 90; Schilsky 1909: 188; Seidlitz 1872: 395, 1891a: 566; Sokanovskii 1960; Stark 1926a: 337, 1926j: 127, 1931a: 27, 1931d: 350, 1952: 399; Stein 1868: 114; Stein & Weise 1877: 164; Tredl 1907: 15; Wachtl 1876a: 455; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 412; Yin, Huang, & Li 1984: 129; Zinovjev 1955: 187. **(tx)** Balachowsky 1949a: 264–265; Charvat 1950; Dombrowsky 1892; E. B. 1880; Eggers 1914, 1922c, 1923b: 138; Eichhoff 1864b: 42, 1877b: 118; Endrodi 1957a: 307, 1957b; Escherich 1923b: 465; Fauvel 1885; Ferrari 1867a: 47, 1867b: 108, 1868: 251, 1878a; Fleischer 1927; Fuchs 1911a; Grune 1979: 146–147; Hagedorn 1910a: 104; Henschel 1878a, 1895a: 183; Hopping, G. 1963c: 512; Karpinski & Strawinski 1948: 157; Koch 1928: 90; Kraatz 1876d: 24; Krivolutskaya 1956: 835, 1958: 178; Kuhnt 1913: 1058; Kurenzov 1941a: 203, 1948b: 111; Lazorko 1963; Lucht 1987: 279; Nobuchi 1974: 52, pl. 2–3; Nunberg 1954: 85; Pfeffer 1932b: 26, 1941c: 7, 1947c: 4, 1955a: 251, 1989a: pl. 10; Postner 1974: 455; Quaschik 1953: 35; Redtenbacher 1874: 377; Reitter 1894a: 81, 1913a: 107, 1916: 304; Rhumbler 1927: 325; Saalas 1913a: 69, 89, 1949: 344, 392; Sahlberg 1836: 144; Schedl 1934f: 1644, 1950a: 76, 1980a: 28, 1981b: 90; Seidlitz 1872: 395, 1891a: 566; Sokanovskii 1928c: 667–668, 1960: 677; Spessivtsev 1913a: 74–75, 1922a: 483, 1925a: 188, 1925b: 19; Stark 1952: 399; Strohmeier 1908b: 69; Teplouchow 1890: 261; Tsai & Li 1959: 99; Wachtl 1883a: 5, 1895: 8; Weber, L. 1912: 30; Yin, Huang, & Li 1984: 129. **(ms)** Kozikowsky 1929: 253; McFadden et al. 1982; Michalski 1959a: 290; Sedlacek 1913: 455; Weber, L. 1912: 30.
- judeichi* Kirsch 1870: 388 (*Bostrichus*). Syntypes, sex?; Ural (Ochansk, Teplouchoff); not located. Synonymy: Eggers 1923: 138.
- References: **(cn)** Koppen 1882: 237. **(hb)** Dombrowsky 1892; Eichhoff 1881a: 50, 230. **(ds)** Fauvel 1885; Gemminger & Harold 1872: 2691; Heyden, Reitter, & Weise 1883: 182, 1891: 672; Koppen 1882: 237; Stein & Weise 1877: 164. **(tx)** Dombrowsky 1892; Eggers 1923: 138; Eichhoff 1878b: 245, 1881a: 50, 230, 1883a: 112, 138; Fauvel 1885; Kirsch 1870: 388, 1890: 252; Schedl 1934f: 1644, 1950a: 76; Teplouchow 1890: 252, 1925: 14–16; Wachtl 1883a: 11.
- infucatus* Eichhoff 1878b: 247 (*Tomicus*). Holotype, sex?; Europa (Styria); Hamburg Museum, lost. Synonymy: Eggers 1923: 138.
- References: **(hb)** Dombrowsky 1892; Eichhoff 1881a: 49, 230; Fuchs 1904a. **(ds)** Fauvel 1885; Fuchs 1904a; Heyden, Reitter, & Weise 1883: 182, 1891: 672; Schilsky 1909: 188; Stein & Weise 1877: 164. **(tx)** Dombrowsky 1892; Eggers 1923: 138; Eichhoff 1877c: 392, 1878b: 247, 1881a: 49, 230, 1883a: 112, 138; Fauvel 1885; Schedl 1934f: 1644; Teplouchow 1890: 261; Wachtl 1883a: 12, 1895: 8.
- emarginatus* (LeConte) 1876: 364 (*Tomicus*). Lectotype ♀; Oregon [USA]; MCZ, Cambridge, designated by Wood 1982b: 694. Figures: Bright 1976d: 153, Hopping 1963e: 1204.

Distribution: North America (S British Columbia in Canada/ Baja California Norte in Mexico/ California, Idaho, W Montana, Oregon, Washington in USA).

Hosts: *Pinus jeffreyi*, *P. monticola*, *P. ponderosa*, uncommon in *P. contorta* and other *P. spp.*

References: (ay) Schonherr 1970b; Thomas, J. B. 1967; Ting 1936: 96. (bv) Miller & Keen 1960: 110; Orr 1935: 1022; Schonherr 1970b; Wood, D. L. 1961b: 187–188. (cn) Anonymous 1960q, 1961h, 1961s, 1966f, 1968b; Browne 1968b: 364; Chamberlin 1924, 1939: 420; Doane et al. 1936; Eaton 1956: 6; Essig 1926: 520, 1958: 520; Felt 1926: 249, 1930a: 249, 267; Graham 1952; Hatch 1938: 194; Hutson 1933: 291–304; Johnson, P. C. 1940: 773–776, 1967: 1–7; Keen 1929c: 45, 1938: 114; Leach 1940b: 223; Lindgren 1980a: 64; Mathiesen 1952: 275; Miller & Keen 1960: 110; Patterson 1923: 38, 1927c: 3; Pronin 1952: 186; Ryker & Rudinsky 1979: 209; Schuder 1969: 78; Silver & Ross 1960: 99, 1961: 99; Swaine 1914: 23, 1918a: 108, 113; Wenz 1985. (cc) Bushing 1965: 460; Callaham & Shifrine 1960: 146; Chamberlin 1939: 420, 1958: 168–169; Craighead et al. 1927; DeLeon 1934b: 297–317; Furniss, R. L. & Carolin 1977: 388; Graham 1952; Holst 1936; Hunter & Davis 1963; Keen 1938: 114; Kinn 1971; Leach 1940b: 223; Lindquist 1970b, 1971; Marsh 1979: 169; Mathiesen 1952: 275; Mathre 1964: 353–362, 1966; Miller & Keen 1960: 110; Otvos & Stark 1985; Patterson 1927c: 3; Rice 1968; Richerson, J. V. & Borden 1972a; Rumbold 1936: 419; Shifrine & Phaff 1956: 45; Struble 1930b: 114; Thompson, W. R. 1943: 59; Thompson, W. R. & Simmonds 1964: 23, 1965: 74; Wichmann 1952b: 23. (hb) Bright 1976d: 157; Bright & Stark 1973: 86; Browne 1968b: 364; Chamberlin 1939: 420, 1958: 168–169; Doane et al. 1936; Eaton 1956; Essig 1926: 520, 1958: 520; Felt 1926: 249, 1930a: 249, 267; Furniss, R. L. & Carolin 1977: 388; Graham 1952; Hopping, C. 1963e: 1204; Johnson, P. C. 1967: 1–7; Keen 1929c: 45, 1933b: 297, 1938: 114; Lindgren 1980a: 64; Miller & Keen 1960: 110; Orr 1935: 1022; Rumbold 1936: 419–437; Ryker & Rudinsky 1979: 209; Swaine 1918a: 108, 113; Wood, S. L. 1982b: 694. (ds) Anonymous 1966f; Bright 1976d: 157; Bright & Stark 1973: 86; Browne 1968b: 364; Chamberlin 1917, 1925, 1939: 420, 1958: 168–169; Eaton 1956; Essig 1926: 520, 1958: 520; Evans, D. 1983: 33; Felt 1926: 249, 1930a: 249, 267; Furniss, R. L. & Carolin 1977: 388; Gast et al. 1989: 385; Hagedorn 1910d: 53; Henshaw 1882: 269, 1885: 148; Hopping, C. 1963e: 1205; Hopping, R. 1922; Keen 1929c: 45, 1929a: 38, 1938: 113–114, 1949a: 93; Kleine 1913b: 127, 1914b: 403, 1934a: 150; Lange 1937: 173; Leng 1920: 341; Nunberg 1958a: 492; Patterson & Hatch 1927: 1–9, 1945: 153; Salman 1933: 131–137; Schuder 1969: 78; Swaine 1909: 122, 1914: 23; Wood, S. L. 1972a:

419, 1982b: 694. (tx) Bright 1976d: 153, 157; Chamberlin 1939: 420, 1958: 168–169; Evans, D. 1983: 33; Hagedorn 1910a: 104; Hopkins 1915c: 183, 185; Hopping, C. 1963c: 509–510, 1963e: 1202–1205; Keen 1929a: 38; LeConte 1876: 364; Nunberg 1958a: 492; Ryker & Rudinsky 1979: 209; Swaine 1909: 122, 1915: 355, 1918a: 108, 113; Thomas, J. B. 1967; Wood, S. L. 1972a: 419, 1982b: 694. (ms) Hatch 1938: 194.

erosus (Wollaston) 1857: 95 (*Tomicus*). Syntypes, sex?, Madera; BMNH, London.

Figures: Alkan 1946: 113, Balachowsky 1949a: 266, Grune 1979: 142, Joly 1976b: fig. 179, Tsai & Li 1959: 103, Wingfield & Marasas 1980: 66.

Distribution: Africa (Algeria/ Egypt/ Libya/ Madeira Island/ Morocco/ South Africa (introduced)/ Tunisia), Asia (Fujian, Henan, Hunan, Jiangsu, Jiangxi, Shanxi, Sichuan, Yunnan in China/ Iran/ Israel/ Jordan/ Syria/ Turkey), Europe (Bulgaria/ Corsica/ England/ France/ Greece/ Italy/ Poland/ Sardinia/ Spain/ Switzerland/ W USSR/ Yugoslavia), Fiji (introduced), South America (introduced: Chile).

Hosts: *Pinus halepensis*, *P. maritima*, *P. pinaster*, *P. spp.*, rare in *Abies pinsapo*, *Cedrus libani*, *Picea orientalis*.

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- rectangulus* Ferrari 1867: 83 (*Tomicus*). Syntypes, sex?; Gall. merid. et Algeria; not located. Synonymy: Balachowsky 1949a: 269, Pfeffer 1955: 262.
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- grandicollis (Eichhoff)** 1868a: 402 (*Tomicus*). Syn-types ♂♂; Amerique boreali; IRSNB, Brussels. Figures: Blandford 1898b: pl. 7, Bright 1976d: 154, Dillon & Dillon 1961: 813, Goyer et al. 1980: 20, Hopping 1965e: 425, Morgan 1967: 141. Distribution: Antilles Islands (Bahama Islands/ Cuba/ Dominican Republic in Hispanola/ Jamaica), Australia (introduced), North America (Manitoba, Ontario, Quebec in Canada/ El Salvador/ Guatemala/ Honduras/ Chiapas, Chihuahua, Durango, Hidalgo, Jalisco, Mexico, Michoacan, Morelos, Puebla, Sinaloa in Mexico/ Nicaragua/ Alabama, Arkansas, Connecticut, District of Columbia, Florida, Georgia, Illinois, Indiana, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, E Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia, Wisconsin in USA). Hosts: *Pinus* spp. References: (**ay**) Hughes 1974; Kudon & Berisford 1981; Lanier 1987b; Miller, M. C. 1979a, 1979b, 1981; Payne et al. 1972; Schonherr 1970b; Smith, M. T. et al. 1988; Thomas, J. B. 1967; Wilkinson 1962, 1963: 19; Wilkinson et al. 1967. (**bv**) All & Anderson 1972; Anderson, N. H. & Anderson 1968; Anderson, R. F. 1977; Annala 1971a: 13; Anonymous 1961h, 1971c, 1971v, 1979a; Atkinson, Foltz, & Connor 1988; Austara 1978: 147; Bakke 1973; Barr, B. A. 1969: 642; Bennett & Ostmark 1972; Berisford & Franklin 1969: 93–96, 1971; Billings 1984b; Birch 1978b; Birch & Svihra 1979b; Birch et al. 1980; Borden et al. 1981: 561; Cameron, R. S. 1987; Dethier 1947; Dixon 1983; Dixon & Payne 1979b, 1980; Du 1987; Elliott, E. W. 1970; Hain & Anderson 1976a, 1976b; Hertel, Hain, & Anderson 1969; Hetrick 1960; Hughes 1974; Inscoc 1982; Inscoc & Beroza 1976: 147; Jacobson 1965, 1972; Klassen, Ridgway, & Inscoc 1982; Lanier & Burkholder 1974; Mason, R. R. 1965a, 1967, 1970; Morgan, F. D. 1967; Mori 1976c; Orr 1935: 1021; Payne & Wood 1981: 492; Renwick & Vite 1972; Roling & Kearby 1975b; Schonherr 1970b; Silverstein & Young 1976: 21; Smith, M. T. et al. 1988; Svihra 1982; Svihra, Paine, & Birch 1980; Thatcher, R. C. & Connor 1985; Turnbow & Franklin 1980; Vite, Bakke, & Renwick 1972: 1971; Vite, Gara, & von Scheller 1964; Vite, Hedden, & Mori 1976; Vite, Ohloff, & Billings 1978; Vite & Pitman 1967: 683–701; Vite & Renwick 1971b; Wagner, Flamm, & Coulson 1985; Werner 1971, 1972a, 1972b, 1972c; Wilkinson 1962, 1964: 58; Wilkinson et al. 1967: 185–195; Witanachchi 1980, 1986; Witanachchi & Morgan 1981; Yearian 1967b: 3356. (**cn**) Allen 1973; Anderson, D. A. 1952: 2–6; Anderson, R. F. 1966, 1977; Anonymous 1952h: 7, 1960h: 6, 1960i, 1960j: 23, 1960q, 1962h, 1963j, 1964h, 1965b, 1966f, 1967f, 1968g, 1970j: 6, 1971e: 6, 1974e, 1979a, 1981u, 1985k: 46; Baker, W. L. 1972: 260; Beal et al. 1952; Bednall 1960: 12, 1961: 12, 1962: 12, 1964: 12; Bennett, W. H. 1954, 1955, 1956a: 2–3, 7–9, 1956a: 2, 1956b, 1957; Bennett, W. H. & Ostmark 1972; Berisford 1969a, 1969b: 961–962; Berisford & Dahlsten 1989; Berisford et al. 1986; Berrios, Menendez, & Rodriguez 1987; Bing 1985; Birch & Svihra 1979b; Blackman 1950; Bongberg 1957; Browne 1968b: 365; Cameron, R. S. 1987; Chamberlin 1939: 417; Chenier & Philogene 1989; Cibulsky & Hyche 1974, 1977; Cory 1914: 168–170; Conlon & Witter 1984: 536; Craighead 1927: 1–12, 1935: 136; Doane et al. 1936; Downing, Ward, & Ciesla 1970: 29; Drooz 1985: 359; Ebel, Merkel, & Kowal 1964, 1968, 1971, 1975, 1977; Eikenbary, Arnold, & Pinkston 1974; Elliot & Morley 1938; Fatzinger 1985b; Felt 1935; Felt & Bromley 1942: 170; Friend 1940: 222–223, 293–331; Gentry, G. R. et al. 1979: 779; Hamel 1980: 774; Harrison 1956; Hetrick 1942, 1943, 1960; Hetrick & Moses 1932; Hochmut & Milan Manso 1975; Hodges & Pickard 1971: 49; Hofacker et al. 1989; Hoffer & Oak 1980; Houser 1932: 70; Johnston & Coyne 1954: 1; Jones & Ford 1954: 1–6; Knight 1971: 43; Koch, P. 1972; Kowal 1953: 106, 1955b: 1, 1955d: 4, 1956a: 4, 1957b:

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248, 266; Hopkins 1894c, 1894d, 1894g: 279, 1899c: 253, 422; Johnson 1897: 79–80, 110, 345–364; Packard 1881: 166–170, 1890: 713; Smith, J. B. 1900: 363. **(ec)** Ashmead 1883b, 1894; Felt 1906: 356. **(hb)** Chittenden 1890, 1897b, 1899a: 55–61; Clemens 1916; Felt 1906: 356, 1926: 248, 266, 1930a: 248, 266; Hopkins 1893c: 189, 1894g, 1899c: 253, 422; Pierce, W. D. 1907: 292; Schwarz 1888a: 80, 1894a: 16, 27; Wolcott & Montgomery 1933: 166. **(ds)** Chittenden 1890, 1897b, 1899a; Felt 1926: 248, 266, 1930a: 248, 266; Hamilton 1859b: 318; Henshaw 1882: 269, 1885: 148; Hopkins 1893a: 138, 145, 148, 1893b: 212, 1899: 422; Leng 1920: 341; Packard 1890: 713; Schwarz 1878d: 469, 1888a: 80; Smith, J. B. 1900: 363, 1910: 403; Swaine 1909: 123; Wolcott & Montgomery 1933: 166. **(tx)** Blandford 1898c: 6; Clemens 1916; Eichhoff 1878b: 231; LeConte 1868: 162, 1876: 362–364; Swaine 1909: 123, 1918a: 113; Wood, S. L. 1982b: 699. **(ms)** Eckstein 1900c.

cribricollis Eichhoff 1869a: 273 (*Tomicus*). Holotype ♂; Mexico; IRSNB, Brussels. Synonymy: Wood 1957c: 397, 1977c: 385.

References: **(ay)** Lanier 1987b; Mankins, J. V. 1980; Thomas, J. B. 1967. **(bv)** Barr, B. A. 1969: 642; Perez Chavez 1981; Silverstein & Young 1976: 2; Vite, Bakke, & Renwick 1972: 1971. **(cn)** Johnston 1939; Mankins, J. V. 1980; Rose-Chaffin 1967b: 4181–4182; Schwerdtfeger 1954: 278, 1956b: 41, 43, 1960b: 258; Vite & Pitman 1967: 683–701; Yates, H. O. 1972a. **(ec)** Becker 1955; Furniss, R. L. & Carolin 1977: 385; Hirschmann 1972b, 1978b; Lindquist 1969c, 1970b, 1971; Rose-Chaffin 1967b; Schwerdtfeger 1956: 43, 1960b: 258; Woodring & Moser 1970, 1975. **(hb)** Becker 1955; Furniss, R. L. & Carolin 1977: 385; Mankins, J. V. 1980; Schwerdtfeger 1956b: 41, 43; Yates, H. O. 1972b. **(ds)** Bates 1832; Blackwelder 1947: 782; Blandford 1898b; DeLeon 1938, 1942a; Ferrer 1942; Furniss, R. L. & Carolin 1977: 394; Gemminger & Harold 1872: 2690; Hagedorn 1910d: 52; Hopping, G. 1965e: 432; Kleine 1913b: 127, 1914b: 350, 362; Schedl 1960a: 75, 1962i: 74, 1963c: 159, 1977e: 43; Schwerdtfeger 1960b: 258; Thomas, J. B. 1966; Wood, S. L. 1957c: 397. **(tx)** Blandford 1898b; DeLeon 1938; Eichhoff 1869a: 273, 1878b: 229; Hagedorn 1910a: 104; Hopkins 1905b: 77; Hopping, G. 1963c: 514, 1965e: 423, 425; Lanier 1987a: 108, 1987b; Mankins, J. V. 1980; Schedl 1940a: 349, 1955g: 41, 1960g: 8; Thomas, J. B. 1967; Wood, S. L. 1957c: 397, 1977c: 385; Yates, H. O. 1972b, 1977: 103.

chagnoni Swaine 1916b: 186. Holotype ♂; Montreal Island, Quebec [Canada]; CNCI, Ottawa. Synonymy: Hopping 1965e: 423.

References: **(cn)** Blackman 1950; Craighead 1924: 28–91, 1927: 1–12; Doane et al. 1936; Schenk et al. 1957a: 840; Schuder 1969: 79; Swaine 1918a: 108, 113; Swaine et al. 1924: 1–27, pl. 22. **(cc)** Hunter & Davies 1963; Lindquist, E. E. 1964; Schenk et al. 1957a: 840. **(hb)** Blackman 1950; Chamberlin 1939: 418; Doane et al. 1936; Swaine 1918a: 108, 113; Swaine et al. 1924: pl. 22. **(ds)** Anonymous 1926c: 519; Beaulne 1956; Blackman 1950; Broun 1934; Chamberlin 1925, 1939: 418; Dodge 1935: 47, 49; Kleine 1934a: 150; Leng 1920: 341; Leonard 1928: 519; Schuder 1969: 79; Thomas, J. B. 1957: 4. **(tx)** Bright 1967b: 675; Chamberlin 1939: 418; Dodge 1935: 47, 49; Hoebeke 1978; Hopping, G. 1963c: 514, 1965e: 423; de Ruette 1970: 102; Schedl 1955g: 39; Schuder 1969: 79; Swaine 1916b: 186–188, 1918a: 108, 113; Thomas, J. B. 1957: 4.

cloudcrofti Swaine 1924c: 70. Holotype ♀; Cloudcroft, New Mexico [USA]; CNCI, Ottawa. Synonymy: Wood 1957c: 397.

References: **(cn)** Doane et al. 1936; Keen 1938: 113, 1952c: 148; Schwerdtfeger 1956b: 42. **(cc)** Keen 1938: 113. **(hb)** Chamberlin 1939: 420; Doane et al. 1936; Keen 1938: 113, 1952c: 148; Schwerdtfeger 1956b: 42. **(ds)** Blackwelder 1947; Chamberlin 1939: 420; Ferrer 1942; Keen 1929a: 37, 1938: 113, 1952c: 148; Leng & Mutchler 1927: 52. **(tx)** Bright 1967b: 675; Chamberlin 1939: 420; Keen 1929a: 37; de Ruette 1970: 102; Schedl 1940a: 349, 1955g: 40; Swaine 1924e: 70–72; Wood, S. L. 1957c: 397.

hauseri Reitter 1894a: 81. Syntypes, sex?; Thian-Schan im sndl. Turkestan; NHMB, Budapest.

Figures: Tsai & Li 1959: 99; Yin, Huang, & Li 1984: 130–131.

Distribution: Asia (Xinjiang in China/ Turkey).

Hosts: *Picea schrenkiana*.

References: **(cn)** Trofimov 1979. **(cc)** Kostin 1964: 120; Marikovskii 1956: 73; Zinovjev 1957: 323. **(hb)** Budkov 1897; Kostin 1960: 135; Stark 1952: 400; Zinovjev 1957: 323. **(ds)** Budkov 1897; Hagedorn 1910d: 54; Heyden 1898: 77; Kadyrov 1989; Kleine 1913b: 128, 1914b: 245, 247, 1934a: 150; Parfentev 1951: 429, 432; Pittioni 1943: 176; Reitter 1894a: 81; Semenov 1904: 38; Stark 1952: 400; Yin, Huang, & Li 1984: 130. **(tx)** Hagedorn 1910a: 104; Reitter 1894a: 81, 1913a: 107; Schedl 1934f: 1645, 1950a: 75–76; Semenov 1904: 38; Stark 1952: 400; Tsai & Li 1959: 99; Yin, Huang, & Li 1984: 130–131.

hoppingi Lanier 1970: 1145. Holotype ♀; 32 km S Chiricahua Nat. Mon., Arizona [USA]; CNCI, Ottawa.

Distribution: North Arizona (Chihuahua, Hidalgo, Mexico in Mexico/ S Arizona, W Texas in USA).

Hosts: *Pinus cembroides*.

Notes: (1) A sibling species of *confusus* LeConte; Cane et al. 1990 found isozyme characters that distinguish it.

References: **(cn)** Hofacker et al. 1989; Ragenovich 1980: 21. **(cc)** Furniss, R. L. & Carolin 1977: 394. **(hb)** Furniss, R. L. & Carolin 1977: 394. **(ds)** Furniss, R. L. & Carolin 1977: 394; Wood, S. L. 1982b: 705. **(tx)** Cane et al. 1990; Lanier 1970: 1145; McNamara 1977: 196; Wood, S. L. 1982b: 705.

hunteri Swaine 1917: 31. Holotype ♀; Creede, Colorado [USA]; SMUK, Lawrence.

Figures: Hopping 1965b: 536.

Distribution: North America (Arizona, Colorado, Utah in USA).

Hosts: *Picea pungens*, accidental in *P. engelmannii*.

References: **(cn)** Swaine 1918a: 110, 118. **(cc)** Davidson 1958; Furniss, R. L. & Carolin 1977: 384; Lindquist, E. E. 1969c. **(hb)** Chamberlin 1939: 430; Furniss, R. L. & Carolin 1977: 384; Swaine 1918a: 110, 118; Wood, S. L. 1960b: 67, 1982b: 681. **(ds)** Chamberlin 1939: 430; Furniss, R. L. & Carolin 1977: 393; Hopping, G. 1965b: 535; Leng 1920: 341; Wood, S. L. 1982b: 681. **(tx)** Bright 1967b: 675; Chamberlin 1939: 430; Hoebeke 1978; Hopping, G. 1963c: 514, 1965b: 535; de Ruette 1970: 103; Swaine 1917: 31, 1918a: 110, 118; Wood, S. L. 1960b: 67, 1982b: 681.

integer (Eichhoff) 1869a: 273 (*Tomicus*). Syntypes, sex?; Mexico; IRSNB, Brussels.

Figures: Atkinson et al. 1986: 33.

Distribution: North America (British Columbia in Canada/ Guatemala/ Chihuahua, Durango, Hidalgo, Jalisco, Mexico, Michoacan, Puebla, Tlaxcala, Veracruz, Zacatecas in Mexico/ Arizona, California, Colorado, Idaho, Montana, New Mexico, Oregon, South Dakota, Utah, Washington, Wyoming in USA).

Hosts: *Pinus* sp.

References: **(bv)** Silverstein & Young 1976: 21; Vite, Bakke, & Renwick 1972: 1971. **(cn)** Anonymous 1963j; Blackman 1931c; Chamberlin 1924, 1939: 424; Currie 1905: 73; Doane et al. 1936; Essig 1926: 520; Felt 1926: 248, 266, 1930a: 248, 267; Hopkins 1904a: 18, 1905: 75–77; Homibrook 1936; Keen 1938: 115, 1952c: 149; Leach 1940b: 223; Lindgren 1980a: 64; Mathiesen 1952: 274; Patterson 1930: 3; Schwerdtfeger 1956b: 50; Stevens, Brewer, & Leatherman 1980: 25, 1982: 25; Swaine 1914: 23, 1918a: 109, 114. **(cc)** Blackman 1931c; Chamberlin 1939: 424; Furniss, R. L. & Carolin 1977: 384; Hirschmann 1978b; Keen 1938: 115; Leach 1940b: 223; Lindquist 1969c, 1971; Mathiesen 1952: 274; Patterson 1930: 5; Poinar 1975: 162; Rumbold 1936: 436; Thompson, W. R. & Simmonds 1964: 23, 1965: 27. **(hb)** Atkinson et al. 1986: 32; Blackman 1931c; Bright 1976d: 159; Bright & Stark 1973: 88; Burgos &

Saucedo 1983: 94; Chamberlin 1939: 424; Doane et al. 1936; Essig 1926: 520; Felt 1926: 248, 267, 1930a: 248, 267; Furniss, R. L. & Carolin 1977: 384; Gillette 1903: 117; Hopkins 1904a: 18, 1905: 75–77; Keen 1938: 115, 1952c: 149; Lindgren 1980a: 64; Pierce, W. D. 1907: 292; Schwerdtfeger 1956b: 50; Stevens, Brewer, & Leatherman 1980: 25, 1982: 25; Swaine 1918a: 109, 114; Trimble 1924: 383; Wood, S. L. 1982b: 693. **(ds)** Anonymous 1963j; Atkinson & Equihua 1985a: 85, 1985b: 235; Atkinson et al. 1986: 32; Blackwelder 1947: 782; Blandford 1898b: 186–187; Bright 1976d: 159; Bright & Stark 1973: 88; Chamberlin 1939: 424; Cockerell et al. 1907; Currie 1905; DeLeon 1938; Essig 1926: 520; Evans, D. 1983: 33; Felt 1926: 248, 267, 1930a: 248, 267; Ferrer 1942; Furniss, R. L. & Carolin 1977: 384; Gast et al. 1989: 385; Gemminger & Harold 1872: 2690; Hagedorn 1910d: 54; Hopping, R. 1922; Keen 1929a: 39, 1938: 115, 1952c: 149; Kleine 1913b: 128, 1914b: 350, 1934a: 150; Lanier 1970: 1420; Leng 1920: 341; Patterson & Hatch 1945: 153; Smith, G. S. 1929; Snow 1883: 44, 1907: 188; Swaine 1909: 123, 1914: 23; Wickham 1896a: 309, 1896b: 170; Wood, S. L. 1957c: 398, 1982b: 693. **(tx)** Atkinson et al. 1986: 33; Benoit 1985: 137; Blandford 1898c; Bright 1976d: 159; Bruck 1936a; Chamberlin 1939: 424; DeLeon 1938; Eggers 1929e: 50; Eichhoff 1869a: 273, 1878b: 226; Evans, D. 1983: 33; Hagedorn 1910a: 104; Hopkins 1905b: 75, 77; Keen 1929a: 39; Lanier 1987a: 108; Schedl 1940a: 349, 1955g: 43; Swaine 1909: 123, 1918a: 109, 114; Wood, S. L. 1957c: 398, 1982b: 693.

knausi Swaine 1915b: 355. Holotype ♂; Clouderoft, New Mexico [USA]; CNCI, Ottawa.

Figures: Hopping 1963e: 1204.

Distribution: North America (Arizona, Colorado, Nevada, New Mexico, South Dakota, S Utah in USA).

Hosts: *Pinus ponderosa*.

References: **(bv)** Silverstein & Young 1976: 21; Vite, Bakke, & Renwick 1972: 1971. **(cn)** Blackman 1931c; Doane et al. 1936; Gillman & Bailey 1978: 7; Johnson, D. W. & Minnemeyer 1976, 1977: 32; Keen 1938: 114, 1952c: 148; Lindgren 1980a: 64; Stevens, Brewer, & Leatherman 1980: 25, 1982: 25; Swaine 1918a: 108, 1925: 261–266. **(cc)** Blackman 1931c; Furniss, R. L. & Carolin 1977: 388; Keen 1938: 114; Lindquist, E. E. 1970b; Livingston, W. H. et al. 1983; Massey 1966c: 424; Thompson, W. R. & Simmonds 1964: 23, 1965: 27. **(hb)** Blackman 1931c; Chamberlin 1939: 421; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 388; Hopping, G. 1963e: 1205; Keen 1938: 114, 1952c: 148; Stevens, Brewer, & Leatherman 1980: 25, 1982: 25; Swaine 1918a: 108. **(ds)** Chamberlin 1925, 1939: 421; Furniss, R. L. & Carolin 1977: 388; Hopping, G. 1963e:

1206; Keen 1938: 114, 1952c: 148; Leng 1920: 341; Wood, S. L. 1982b: 697. **(tx)** Bright 1967b: 675; Chamberlin 1939: 421; Hopping, G. 1963e: 510, 1963e: 1202–1205; de Ruelle 1970: 103; Swaine 1915b: 355, 1918a: 108, 1925: 261–266; Wood, S. L. 1982b: 697.

latidens (LeConte) 1874a: 72 (*Tomicus*). Holotype ♀; California [USA]; MCZ, Cambridge.

Figures: Blackman 1922d: 137, Bright 1976d: 153, Kusch 1967: 10.

Distribution: North America (Alberta, British Columbia, Ontario, Quebec, Saskatchewan in Canada/ Chihuahua in Mexico/ Arizona, California, Colorado, Idaho, Massachusetts, Montana, New Hampshire, New Mexico, New York, Oregon, Pennsylvania, Utah, Washington, West Virginia, Wyoming in USA).

Hosts: *Pinus albicaulis*, *P. contorta*, *P. coulteri*, *P. edulis*, *P. flexilis*, *P. jeffreyi*, *P. lambertiana*, *P. monticola*, *P. ponderosa*, *P. strobus*.

References: **(ay)** Thomas, J. B. 1967. **(bv)** Barr, B. A. 1969: 642; Chapman 1963: 676; Franklin 1968; Furniss, M. M. & Livingston 1979: 371; Inscoc 1982; Jacobson 1972; Klassen, Ridgway, & Inscoc 1982; Miller, Madden, & Borden 1986: 85; Moeck, Wood, & Lindahl 1981; Schmitz 1988; Seybold et al. 1988: 429; Silverstein & Young 1976: 21; Wood, D. L. et al. 1967. **(cn)** Anonymous 1965b; Browne 1968b: 491; Chamberlin 1924; Currie 1905: 72; Doane et al. 1936; Essig 1926: 520, 1958: 520; Hopkins 1904a: 17; Keen 1929: 48, 1938: 114, 1952c: 148; Lindgren 1980a: 64; Miller & Borden 1985; Ruppel 1967: 54; Schuder 1969: 78; Silver & Ross 1963a: 110; Smith, A. 1981; Smith, G. J. & Melvin 1974b; Swaine 1918a: 109, 114. **(cc)** Bushing 1965: 462; Chatelain & Schenk 1983; Dahlsten & Stephen 1974: 1213; DeLeon 1934a; Furniss, R. L. & Carolin 1977: 384; Hirschmann & Wisniewski 1982, 1983; Hurlbutt 1967; Keen 1938: 114; Kinn 1971; Kullavy, Partridge, & Stark 1984; Lindquist 1969e, 1971; Marsh 1979: 157; Matthews 1970; Miller & Borden 1985; Otvos & Stark 1985; Powell, J. M., Wong, & Melvin 1972: 15; Rice 1968, 1969: 386; Schmitz 1988; Stephen & Dahlsten 1976c: 292; Wood, D. L. & Stark 1968: 148. **(hb)** Annala 1971: 12; Baker, W. L. 1972: 262; Bakke 1968b: 647; Bright 1976b: 152; Bright & Stark 1973: 84; Browne 1968b: 491; Chamberlin 1939: 421, 1958: 169; DeLeon 1952: 78; Doane et al. 1936; Essig 1926: 520, 1958: 520; Furniss, R. L. & Carolin 1977: 384; Hopkins 1904a: 17; Keen 1929: 48, 1938: 114, 1952c: 148; Lindgren 1980a: 64; Miller & Borden 1985; Pierce, W. D. 1907: 292; Schmitz 1988; Swaine 1918a: 109, 114; Wood, S. L. 1982b: 676. **(ds)** Anonymous 1965b; Bright 1976d: 152; Bright & Stark 1973: 84; Brown 1943: 1–12; Browne 1968b: 491; Chamberlin 1917: 327, 1925, 1939: 421, 1958: 169; Chapman 1963: 676; Currie

1905; DeLeon 1952; Drooz 1985: 361; Essig 1926: 520, 1958: 520; Evans, D. 1983: 33; Evans, D., Lowe, & Hunt 1975; Fall 1906: 202; Furniss, M. M. & Livingston 1979: 371; Furniss, R. L. & Carolin 1977: 387; Gast et al. 1989: 385; Hagedorn 1910d: 55; Henshaw 1882: 269, 1885: 148; Hopping, G. 1963a: 64; Hopping, R. 1922; Horing & Barr 1970: 41; Keen 1929: 48, 1929a: 38, 1938: 114, 1952c: 148; Kleine 1913b: 128, 1914b: 390, 1934a: 150; Lange 1937: 173; Leng 1920: 341; Leonard 1928: 519; McComb et al. 1953: 3; Patterson & Hatch 1945: 153; Rice 1969: 382–386; Ruppel 1967: 54; Schuder 1969: 78; Smith, G. J. & Melvin 1974b; Swaine 1909: 124; Thatcher, T. O. 1935: 261; Wickham 1896a: 309; Wood, S. L. 1948: 61, 1951a: 128, 1972a: 419, 1982b: 676. **(tx)** Blackman 1922d: 137–138; Bright 1976d: 152–153; Chamberlin 1939: 421, 1958: 169; Evans, D. 1983: 33; Hagedorn 1910a: 105; Hopping, G. 1963a: 64, 1963b: 63–64; Keen 1929a: 38; LeConte 1874a: 72, 1876: 367; Pardy 1974, 1977; Swaine 1909: 124, 1911a: 214–216, 1918a: 109, 114; Thomas, J. B. 1967; Wood, S. L. 1966b: 24, 1972a: 419, 1982b: 676.

lougideus Swaine 1911a: 214. Lectotype ♂; Ithaca, New York [USA]; CNCI, Ottawa, designated by Bright 1967b: 676. Synonymy: Hopping 1963a: 64.

References: **(cn)** Blackman 1950; Clemens 1916: 297; Doane et al. 1936; Swaine 1918a: 108, 114; Swaine et al. 1924: pl. 22. **(ec)** Thompson, W. R. 1943: 59; Thompson, W. R. & Simmonds 1964: 23, 1965: 28. **(hb)** Blackman 1919a: 85–90, 1950; Chamberlin 1939: 422; Doane et al. 1936; Gobeil 1936b; Swaine 1918a: 108, 114; Swaine et al. 1924: 28–91, pl. 22. **(ds)** Anonymous 1926c: 519; Beaulne 1956; Blackman 1950; Chamberlin 1925, 1939: 422; Kleine 1913b: 128, 1934a: 151; Leng 1920: 341. **(tx)** Blackman 1922d: 137–138; Bright 1967b: 676; Chamberlin 1939: 422; Hoebeke 1978; Hopping, G. 1963b: 64; de Ruette 1970: 103; Swaine 1911a: 214, 1918a: 108, 114.

guldii Blackman 1922d: 137. Holotype ♀; Grand Lake, Colorado [USA]; USNM, Washington. Synonymy: Hopping 1963b: 64.

References: **(cn)** Doane et al. 1936; Keen 1938: 115, 1952c: 149; Smith, G. J. & Melvin 1974a, 1974b. **(cc)** Keen 1938: 115; Nordin 1956; Reid 1955: 312; Woodring 1966c: 123. **(hb)** Chamberlin 1939: 422, 1958: 170; Doane et al. 1936; Keen 1938: 115, 1952c: 149; Reid 1955: 312, 316. **(ds)** Chamberlin 1925, 1939: 422, 1958: 170; Gautreau 1974: 5; Gautreau & Melvin 1974: 13; Keen 1929a: 38, 1938: 115, 1952c: 149; Kusch 1967; Leng & Mutchler 1927: 52; Smith, G. J. & Melvin 1974a, 1974b; Still, Tidsbury, & Melvin 1974a: 13; Susut & Melvin 1974; Wood, S. L. 1951a: 128. **(tx)** Blackman 1922d: 137; Chamberlin 1939: 422,

1958: 170; Hopping, G. 1963b: 64; Keen 1929a: 38; Kusch 1967: 10; Wood, S. L. 1951a: 128.

lecontei Swaine 1924c: 70. Holotype ♂; Arizona [USA]; MCZ, Cambridge.

Figures: Massey & Rodriguez 1967c: 218.

Distribution: North America (Guatemala/ Honduras/ Chihuahua, Colima, Durango, Jalisco in Mexico/ Arizona, New Mexico in USA).

Hosts: *Pinus durangensis*, *P. montezumae*, *P. oocarpa*, *P. ponderosa*, *P. pseudostrobus*.

References: **(ay)** Mankins, J. V. 1980; Thomas, J. B. 1967. **(bv)** Barr, B. A. 1969: 642; Francke et al. 1986; Massey & Rodriguez 1967c; Scybold et al. 1988: 441; Thomas & Birch 1970: 452. **(cn)** Anonymous 1958a: 6, 1960g, 1960i, 1960j: 18, 1960q, 1961h, 1961s, 1967t, 1968p, 1975e; Beatty 1980: 4; Bongberg 1962; Doane et al. 1936; Flake & Germain 1970: 24; Frye 1971b: 25; Hornibrook 1936: 620–622; Keen 1938: 115, 1952c: 147; Lucht 1966: 28; Lucht & Moore 1963: 18; Mankins, J. V. 1980; Massey 1969a; Massey & Parker 1981; Massey & Rodriguez 1967c; Ostmark 1956: 8, 1966: 4180, 1969: 1–4; Parker, D. L. 1979; Parker, D. L. et al. 1977: 34; Patterson 1930: 3; Pitman 1969b; Price 1958: 61; Ragenovich 1980b: 21; Schwerdtfeger 1956b: 42; Smith, A. 1981; Stelzer 1970: 956–959; Stevens, Brewer, & Leatherman 1982: 25; Telfer 1982. **(ec)** Anonymous 1964x; Chansler 1966; Ellis 1939: 556–557; Furniss, R. L. & Carolin 1977: 385; Keen 1938: 115; Lindquist 1969c, 1971; Massey 1965b: 67–75; Massey & Parker 1981; Patterson 1930: 3; Poinar 1975: 162. **(hb)** Bongberg 1959a; Chamberlin 1939: 419; Chansler 1964: 1–4, 1966: 622–624; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 385; Keen 1952c: 147; Mankins, J. V. 1980; Massey 1969a; Massey & Parker 1981; Massey & Rodriguez 1967c; Ostmark 1966; Parker, D. L. 1979; Schwerdtfeger 1956b: 42; Stevens, Brewer, & Leatherman 1982: 25. **(ds)** Acciavatti & Weiss 1974; Anonymous 1958a: 6, 1960: 12, 1967t, 1968p, 1975e; Atkinson & Equihua 1985b: 236; Blackwelder 1947: 782; Chamberlin 1939: 419; Chansler 1964; Ferrer 1942: 11; Furniss, R. L. & Carolin 1977: 385; Hopping, G. 1965e: 433; Keen 1929a: 37, 1952c: 147; Leng & Mutchler 1927: 52; Little 1943: 245; Massey & Parker 1981; Massey & Rodriguez 1967c; Thomas, J. B. 1966; Wood, S. L. 1957c: 397, 1982b: 701. **(tx)** Bright 1967b: 675; Chamberlin 1939: 419; Chansler 1964; Hopping, G. 1963c: 510, 1965e: 423, 425, 433; Keen 1929a: 37; Mankins, J. V. 1980; Massey & Rodriguez 1967c: 218; de Ruette 1970: 103; Schedl 1940a: 349, 1955g: 40, 1960g: 8; Swaine 1924c: 70; Wood, S. L. 1957c: 397–398. **(ms)** Bongberg 1959a.

longifolia (Stebbing) 1909b: 26 (*Tomicus*). Syn-types 3 ♂; Kumau, North-West Himalaya, India; FRI, Dehra Dun.

Distribution: Asia (Himachal Pradesh, Punjab, Uttar Pradesh in India).

Hosts: *Pinus roxburghii*.

References: (ay) Gardner 1934b: 1–17. (cn) Beeson 1915a: 318–325, 1915b: 8–11, 1918, 1922a: 496; Browne 1968b: 365; Chandry 1966; Hlueke 1966; Pierce, W. D. 1917: 74; Roonwal 1954: 17; Stebbing 1903a: 282, 1914: 557; Troup 1916: 1–126. (ec) Beeson 1922c: 342–343; Lindquist 1969c; Stebbing 1914: 557; Thompson, W. R. 1943: 59. (hb) Beeson 1915a, 1922c: 342–343; Browne 1968b: 365; Stebbing 1903a: 282, 1908a: 111, 1909b: 16, 24, 26, 1911a: 6, 1914: 557. (ds) Beeson 1919c: 114–124, 1922a: 496, 1922c: 342–343, 1961: 288; Bhasin, Roonwal, & Singh 1958; Browne 1968b: 365; Champion 1922: 168–174, 232–246; Hagedorn 1910d: 56; Kleine 1914b: 277, 1934a: 151; Pierce, W. D. 1917: 74; Qadri 1951a: 368, 1951b: 68; Roonwal 1954: 17; Schedl 1974a: 88; Stebbing 1903a: 282; Waterston 1922: 51–94; Zethner 1973. (tx) Gardner 1934b: 1–17; Hagedorn 1910a: 105; Schedl 1974a: 88; Schmutzenhofer 1988; Stebbing 1909b: 16, 24, 26, 1914: 557.

mamsfeldi (Wachtl) 1879: 51 (*Tomicus*). Syntypes, sex?, Austria inferior; not located.

Figures: Grune 1979: 150, Plaza & Gill 1982: 250, Tsai & Li 1959: 100, Yin, Huang, & Li 1989: 129. Distribution: Asia (Qinghai, Sichuan, Yunnan in China/ Turkey), Europe (Austria/ Bulgaria/ Corsica/ France/ Hungary/ Poland/ Yugoslavia).

Hosts: *Pinus densata*, *P. nigricans*, *P. yunnanensis*, rare in *P. sylvestris*, *Picea asperata*, *P. balfouriana*.

References: (ay) Escherich 1923b: 486, 541; Feytaud 1950a; Fuchs 1911a. (bv) Grune 1979: 151; Fu, Wu, & Ning 1984. (cn) Escherich 1923b: 486, 541; Feytaud 1950a; Jahn 1960b; Koch 1913: 113; Nusslin 1913: 273; Pierce, W. D. 1917: 74; Rhumbler 1922: 316, 1927: 333; Schimitschek 1937c: 58, 1944: 219, 1952c: 60, 1955a: 76, 1955c: 89; Schwerdtfeger 1944a: 176, 1957a: 183; Sedlacek 1935a: 163, 1936: 200; Sierpinski 1966: 60; Wachtl 1901: 381. (cc) Acatay 1943b; Apfelbeck 1916b; Kleine 1908c: 214, 1909a: 48, 77, 1944: 72; Knoche 1908b: 204; Novak, P. 1952: 417; Schimitschek 1930a: 281, 1941a: 314, 1955a: 76; Schwerdtfeger 1944a: 176, 1957a: 183; Wachtl 1879: 51. (hb) Alkan 1946: 113; Apfelbeck 1916b: 429–439, 1917; Chararas 1962c: 217; Charvat 1950; Escherich 1923b: 486, 541; Feytaud 1950a; Knotek 1897: 156, 1899b: 12, 1901: 572; Lengerken 1939: 72, 1954: 93; Nusslin 1913: 273; Postner 1974: 454; Rhumbler 1922: 316, 1927: 333; Schedl 1981b: 89; Schimitschek 1930a: 281, 1944: 219, 1955a: 76; Schwerdtfeger 1944a: 176, 1957a: 183, 1981: 189; Sedlacek 1935a: 163; Wachtl 1901: 381; Yang 1989c. (ds) Acatay 1943: 3; Bain 1974: 17; Buresh & Lazarov 1956; Charvat 1950; Chorbadzhiev 1924d; Endrodi 1958b; Escherich

1923b: 486, 541; Fauvel 1885; Fice 1961: 173–204; Fuchs 1905a, 1907: 33; Ganglbauer 1882; Grune 1979: 151; Hagedorn 1910d: 56; Hennig 1954: 263; Heyden, Reitter, & Weise 1891: 672, 1906: 712; Horion 1951; Kleine 1913a: 35, 1913b: 128, 1934a: 151; Knotek 1899b: 12, 1901: 572; Kurir 1947e: 7; Li, Shi, & Ao 1984: 49; Lucht 1987: 279; Novak, P. 1952: 417; Nunberg 1964a: 236; Pfeffer 1947d: 127, 1984: 277, 1989a: 75; Pierce, W. D. 1917: 74; Pittioni 1943: 175; Plaza & Gil 1982: 250; Postner 1974: 454; Prossen 1913: 83; Reitter 1887a: 105, 1894a: 82; Sainte-Claire 1914: 473; Sainte-Claire & Mequignon 1938: 448; Schaufuss 1915: 1249; Schedl 1961b: 185, 1980a: 28, 1981b: 89; Schilsky 1909: 188; Schwerdtfeger 1981: 189; Sierpinski 1966: 60; Tredl 1907: 16; Wichmann 1927a: 78; Yin & Huang 1981: 563; Yin, Huang, & Li 1984: 129. (tx) Alkan 1946: 113; Balachowsky 1949a: 263; Charvat 1950; Chorbadzhiev 1924d; E. B. 1880; Eggers 1914, 1924; Endrodi 1957a: 307, 1957b; Escherich 1923b: 486, 541; Fauvel 1885; Formanek 1907: 42; Fuchs 1911a; Grune 1979: 150–151; Hagedorn 1910a: 105; Koch 1913: 113, 1932: 135; Lucht 1987: 279; Pfeffer 1932b: 3, 1955a: 240; Plaza & Gil 1982: 250; Postner 1974: 454; Quaschik 1953: 35; Reitter 1894a: 82, 1913a: 107; Rhumbler 1922: 316, 1927: 333; Schedl 1934f: 1645, 1950a: 71, 1980a: 28, 1981b: 89; Schimitschek 1937c: 58, 1955c: 89; Tsai & Li 1959: 100; Wachtl 1879: 51, 1883a: 8, 1895: 8, 1896: 257; Weber, L. 1912: 30; Yin & Huang 1981: 563; Yin, Huang, & Li 1984: 129. (ms) Sedlacek 1913: 455, 1936: 200; Weber, L. 1912: 30.

mexicanus (Hopkins) 1905b: 75 (*Tomicus*). Lectotype ♀; Mexico City, Mexico; USNM, Washington, designated by Wood 1982b: 674.

Figures: Bright 1976d: 153, Hopping 1963d: 1093, Hopkins 1905b: 75, Kusch 1967: 10, Struble 1961: 4. Distribution: North America (Alaska/ Alberta, British Columbia in Canada/ Guatemala/ Baja California Norte, Chiapas, Distrito Federal, Durango, Hidalgo, Mexico, Michoacan, Puebla, Veracruz in Mexico/ Arizona, California, Colorado, Idaho, Montana, Oregon, Utah, Wyoming in USA).

Hosts: *Pimis albicanilis*, *P. attenuata*, *P. ayacahuite*, *P. contorta*, *P. cooperi*, *P. durangensis*, *P. flexilis*, *P. hartwegii*, *P. jeffreyi*, *P. lambertiana*, *P. leiophylla*, *P. montezumae*, *P. muricata*, *P. oocarpa*, *P. patula*, *P. ponderosa*, *P. pseudostrobus*, *P. radiata*.

Notes: (3) Chamberlin 1917: 327 (cited *wieslanderii* Swaine, nomen nudum, no status).

References: (ay) Mankins, J. V. 1980; Payne et al. 1973; Thomas, J. B. 1967. (bv) Barr, B. A. 1969: 642; Olmart & Voight 1982: 340. (cn) Anonymous 1965b, 1966f, 1966h; Arno & Hoff 1989; Browne 1968b: 366; Gentry, C. R. et al. 1979: 807; Hamel 1980: 781; Kondo & Moody 1987: 108;

Lindgren 1980a: 65; Lindquist, E. E. 1969c; Mankins, J. V. 1980; Neal 1979: 807; Ruppel 1967: 54; Schwerdtfeger 1956b: 34; Smith, G. J. & Melvin 1974a, 1974b; Wood, R. O. 1969: 90. **(ec)** Becker, G. 1955; Bedard 1966a: 936; Chatelain & Schenk 1983; Deyrup & Gara 1978: 275; Furniss, R. L. & Carolin 1977: 384; Kinn 1971; Lindquist, E. E. 1971; Ohmart & Voight 1982: 340; Woodring 1966c: 123. **(hb)** Atkinson et al. 1986: 32; Becker, G. 1955; Bright & Stark 1973: 85; Browne 1968b: 366; Burgos & Saucedo 1983: 92; Furniss, R. L. & Carolin 1977: 394; Lindgren 1980a: 65; Mankins, J. V. 1980; Schwerdtfeger 1956b: 34; Wood, S. L. 1982b: 674. **(ds)** Anonymous 1965b, 1966f, 1966h; Atkinson & Equihua 1985a: 84, 1985b: 235; Atkinson et al. 1986: 32; Blackwelder 1947: 782; Bright 1976d: 156; Bright & Stark 1973: 85; Browne 1968b: 366; Burgos & Saucedo 1983: 92; DeLeon 1938; Evans, D. 1983: 33; Ferrer 1942; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 384; Gast et al. 1989: 385; Gautreau & Melvin 1974: 14; Hagedorn 1910d: 56; Hopping, G. 1963d: 1094; Kleine 1913b: 128, 1914b: 350, 362; Kusch 1967; Ohmart & Voight 1982: 340; Ramirez 1921: 662–663; Ruppel 1967: 54; Smith, G. J. & Melvin 1974a, 1974b; Thatcher 1935: 261; Thomas, J. B. 1966; Wood, S. L. 1957c: 398, 1972a: 419, 1982b: 674. **(tx)** Bright 1976d: 153, 156, pl. 42; DeLeon 1938; Evans, D. 1983: 33; Hagedorn 1910a: 105; Hopkins 1905b: 75, 1915e: 54; Hopping, G. 1963b: 62, 1963c: 510, 1963d: 1092–1094; Kusch 1967: 10; Mankins, J. V. 1980; Schedl 1940a: 349, 1955g: 33; Thomas, J. B. 1967; Wood, S. L. 1957c: 398–399, 1972a: 419, 1982b: 674.

radiatae Hopkins 1915e: 54 (*Tomicus*). Holotype ♀?; Berkeley, California [USA]; USNM, Washington. Synonymy: Hopping 1963d: 1094. References: **(ay)** Eaton 1942; Schonherr 1970b. **(bv)** Schonherr 1970b; Struble 1961; Wood, D. L. 1961b: 187–188. **(cn)** Anonymous 1961b; Brown 1954; Burke 1937: 28; Chamberlin 1924; Doane 1927: 284–286; Doane et al. 1936; Eaton 1942: 41–49; Essig 1926: 520, 1958: 520; Felt 1926: 249, 267, 1930a: 249, 267; Hatch 1938: 194; Herbert 1919: 337; Hutson et al. 19...: 291–304; Keen 1929: 42, 1933: 298, 1938: 117, 1952c: 151; Ruhn 1964; Struble 1961; Swaine 1918a: 107, 112; Van Dyke 1922: 180; Villarreal Martinez 1957: 11. **(cc)** Bushing 1965: 461; DeLeon 1934a; Doane 1927; Keen 1938: 117; Lindquist & Bedard 1961; Person 1940: 391; Powell, Wong, & Melvin 1972: 7; Richerson & Borden 1972a; Ruhn 1964; Thompson, W. R. & Simmonds 1964: 24, 1965: 27; Woodring 1966c. **(hb)** Chamberlin 1939: 415, 1958: 165–166; Doane et al. 1936; Essig 1926: 520, 1958: 520; Felt 1926: 249, 267, 1930a: 249, 267; Keen 1929c: 42, 1933b: 297–298, 1938: 117, 1952c: 151; Stru-

ble 1961: 1–7; Swaine 1918a: 107, 112; Trimble 1924: 382–390. **(ds)** Blackwelder 1947: 782; Chamberlin 1917: 327, 1925: 196–197, 1939: 415, 1958: 165–166; Essig 1926: 520, 1958: 520; Felt 1926: 249, 267, 1930a: 249, 267; Ferrer 1942; Hopping, R. 1922, 1950a; Keen 1929: 42, 1929a: 37, 1938: 117, 1952c: 151; Kleine 1934a: 151; Leng 1920: 341; McComb 1953: 3; Patterson & Hatch 1945: 153; Struble 1961; Wood, S. L. 1948: 60, 1951a: 128, 1957c: 399. **(tx)** Chamberlin 1939: 415, 1958: 165–166; Hopkins 1915e: 54; Hopping, G. 1963b: 62, 1963c: 510, 1963d: 1094; Keen 1929a: 37; Schedl 1940a: 349, 1955g: 34; Struble 1961: 4; Swaine 1917b: 356, 1918a: 107, 112; Wood, S. L. 1951a: 128, 1957c: 399.

montanus (Eichhoff) 1881a: 219 (*Tomicus*). Lectotype ♀; California [USA]; USNM, Washington, designated by Wood 1982b: 702.

Figures: Hopping 1965e: 425.

Distribution: North America (S British Columbia in Canada/ California, Idaho, W Montana, Oregon, Washington in USA).

Hosts: *Pinus monticola*, uncommon in *P. albicaulis*, *P. balfouriana*.

References: **(bv)** Barr, B. A. 1969: 642; Pitman 1966b; Vite & Pitman 1967: 683–701. **(cn)** Anonymous 1963j; Hopkins 1899b: 20, 1904a: 18; Lindgren 1980a: 65; Ruppel 1967: 54. **(cc)** Bushing 1965: 461; Furniss, R. L. & Carolin 1977: 396; Kinn 1971, 1983a; Kulhavy, Partridge, & Stark 1984; Lindquist 1964, 1969c; Otvos & Stark 1985; Pitman & Vite 1969: 145; Rice 1968; Richerson & Borden 1972a; Schonherr 1971; Smiley & Knutson 1983. **(hb)** Bright & Stark 1973: 91; Chamberlin 1939: 431, 1958: 167–168; Furniss, R. L. & Carolin 1977: 396; Hopkins 1899b: 20, 1904a: 18; Hopping, G. 1965e: 430; Lindgren 1980a: 65. **(ds)** Anonymous 1963j; Blackwelder 1939; Bright 1976d: 167; Bright & Stark 1973: 91; Chamberlin 1939: 431, 1958: 167–168; Evans, D. 1983: 33; Furniss, M. M. & Furniss 1972; Furniss, R. L. & Carolin 1977: 396; Gast et al. 1989: 385; Hopping, G. 1965e: 430; Leng 1920: 341; Ruppel 1967: 54; Schwarz 1886: 42; Swaine 1909: 122; Wood, S. L. 1957c: 397–398, 1982b: 702. **(tx)** Bright 1976d: 167; Chamberlin 1939: 431, 1958: 167–168; Eggers 1929: 50, 1931c: 20, 1933g: 20; Eichhoff 1881a: 219; Evans, D. 1983: 33; Hopping, G. 1963c: 514, 1965e: 425, 430; Reitter 1913a: 105; Schedl 1950a: 82, 1951m: 73, 1960g: 6–7; Schwarz 1886: 42; Swaine 1909: 122, 1918a: 113, 1924c: 70, 72; Wood, S. L. 1955g: 39, 1957c: 397–398, 1982b: 702. **(ms)** Hatch 1938: 194.

vancouveri Swaine 1916b: 188. Holotype ♂; Quathiaski Cove, Vancouver Island, British Columbia [Canada]. Synonymy: Wood 1957c: 398.

References: **(cn)** Doane et al. 1936; Hatch

1938: 194; Keen 1929: 45, 1938: 113, 1952c: 148; Swaine 1918a: 108, 113. **(ec)** DeLeon 1934a, 1934b: 297–317; Hutson 1933: 291–304; Keen 1938: 113; Thompson, W. R. 1943: 61. **(hb)** Chamberlin 1939: 419; Chapman & Kinghorn 1958: 368; Doane et al. 1936; Keen 1929: 45, 1933b: 297–298, 1938: 113, 1952c: 148; Swaine 1918a: 108, 113. **(ds)** Chamberlin 1925, 1939: 419; Hopping, R. 1922; Keen 1929: 45, 1938: 113, 1952c: 148; Kleine 1934a: 151; Leng 1920: 341; Patterson & Hatch 1945: 153; Schuder 1969: 78; Smith, G. S. 1930. **(tx)** Bright 1967b: 676; Chamberlin 1939: 419; Eggers 1929e: 50; Hoebeke 1978; Hopping, G. 1965e: 430; de Ruelle 1970: 104; Schedl 1955g: 40, 1960g: 6–7; Swaine 1916b: 188, 1918a: 108, 113, 1924c: 70–72; Wood, S. L. 1957c: 398. **(ms)** Hatch 1938: 194.

nitidus Eggers 1933a: 101. Holotype, sex?; China: Szechuan, Nitou Tatsienlu und Mukue Tatsienlu; USNM, Washington.

Figures: Yin, Huang, & Li 1984: 133 (declivity).

Distribution: Asia (Gansu, Qinghai, Sichuan, Xingjiang, Yunnan in China).

Hosts: *Picea asperata*, *P. balfouriana*, *P. crassifolia*, *P. schrenkiana*, *P. tianshanica*, *Pinus densata*, *P. yunnanensis*, *Abies faxoniana*.

References: **(bv)** Fu, Wu, & Ning 1984. **(ds)** Yin & Huang 1981: 564; Yin, Huang, & Li 1984: 133. **(tx)** Anderson, W. H. & Anderson 1971: 22; Eggers 1933a: 101; Michalski 1969b: 570; Schedl 1950a: 81; Sokanovskii 1959b: 93–94; Yin & Huang 1981: 564; Yin, Huang, & Li 1984: 133.

nobilis (Wollaston) 1862a: 441 (*Tomicus*). Syntypes, sex?; Canary Islands; BMNH, London.

Distribution: Africa (Canary Islands).

Hosts: *Pinus canariensis*.

References: **(cn)** Espinol 1964: 52–54; Souphieff & Scherbinovskaja 1937: 102. **(ds)** Hagedorn 1910d: 56; Kleine 1913b: 128, 1914a: 20; Lacordaire 1866: 383; Palm 1967: 45; Schedl 1971d: 426; Schedl, Lindberg, & Lindberg 1959: 24; Souphieff & Scherbinovskaja 1937: 102; Uyttenboogaart 1937: 118. **(tx)** Eichhoff 1878b: 257; Ferrari 1867a: 47, 1868: 251, 254; Hagedorn 1910a: 105; Lacordaire 1866: 383; Schedl 1934f: 1645; Schedl, Lindberg, & Lindberg 1959: 24; Wollaston 1862a: 441, 1864: 254, 1865: 236, 1871: 262.

orientalis Wood & Yin 1986: 461. Holotype ♂; Baxoi, Xizang (Tibet), China; IZAS, Beijing. Distribution: Asia (Sichuan, Xizang [Tibet] in China).

Hosts: *Picea* sp.

References: **(tx)** Wood, S. L. & Yin 1986: 461.

paraconfusus Lanier 1970: 1146. Holotype ♀; Avery, Calaveras Co., California [USA]; CNCI, Ottawa.

Figures: Bright & Stark 1973: 161, Powell & Hogue 1979: 313.

Distribution: North America (California, W Nevada, W Oregon in USA).

Hosts: *Pinus attenuata*, *P. coulteri*, *P. jeffreyi*, *P. lambertiana*, *P. ponderosa*.

Notes: (3) Most citations of this name prior to 1970 were published as *confusus* and are listed under that name.

References: **(ay)** Furniss, M. M. & Livingston 1979: 370; Groberman & Borden 1982; Hagen & Atkins 1975; Hughes & Renwick 1977b; Light 1983a, 1983b; Lyon 1955: 482; Nijholt & Sahota 1974: 931; Oester & Rudinsky 1979; Payne et al. 1973; Penner 1971; Penner & Barlow 1972; Ummithan & Nair 1977. **(bv)** Akers 1989; Akers & Wood 1989a, 1989b; Bakke 1973; Bertrand & Viala 1978; Birch & Light 1977; Birch & Svihra 1979b; Birch & Wood 1975; Birgersson et al. 1984: 1047; Borden 1971b; Borden et al. 1981: 561; Byers 1978b, 1981a, 1981b, 1983c, 1983d, 1989a, 1989b; Byers & Wood 1980, 1981b; Byers et al. 1979; Chen, Borden, & Pierce 1988; Du 1987; Elkinton 1979b; Elkinton & Wood 1980; Elkinton, Wood, & Browne 1981; Fish, Browne, & Bergot 1984; Fish et al. 1979; Furniss, M. M. & Livingston 1979: 370; Gargers & Scott 1976; Gargiullo & Berisford 1981: 392; Gerken & Hughes 1976; Goheen et al. 1985; Groberman & Borden 1982; Hagen & Atkins 1975; Hendry et al. 1980; Hosomi, Araki, & Sakurai 1983; Hosomi, Saito, & Sakurai 1979; Hughes 1974; Hughes & Renwick 1977b; Inscocoe 1982; Inscocoe & Beroza 1976: 147; Klassen, Ridgway, & Inscocoe 1982; Lanier et al. 1972: 1922; Light 1981b, 1983a, 1983b; Light & Birch 1979, 1982; Look 1980; Mori 1975a, 1976a; Mori, Takigawa, & Matsuo 1979; Mustaparta 1979; Mustaparta, Angst, & Lanier 1979; Oester & Rudinsky 1979; Ohmart & Voight 1982: 340; Payne & Wood 1981: 492; Renwick, Hughes, & Krull 1976; Renwick, Pitman, & Vite 1976; Riley, R. C. et al. 1974; Rudinsky 1979a: 409; Schmitz 1972: 1725; Schultz & Bedard 1987; Silverstein 1971b, 1974, 1977; Silverstein & Young 1976: 21; Thomas, T. L. & Agee 1986; Tumlinson, Mitchell, & Chambers 1970: 56; Vite, Bakke, & Renwick 1972: 1971; Vite, Ohloff, & Billings 1978; Weaver, N. 1978a; Weber, R. & Schurig 1984; Whittaker & Feeny 1971; Wood, D. L. 1980b; Young, J. C. et al. 1973. **(cn)** Anonymous 1972h, 1973c, 1974f, 1978u; Birch & Svihra 1979b; Coulson & Witter 1984: 535; Gentry, G. R. et al. 1979: 804; Hamel 1980: 778; Hamilton, W. D., Svihra, & Koehler 1988; Lindgren 1980a: 65; Mattson & Haack 1987; Neal 1979: 804; Oliver 1979; Payne & Wood 1981: 492; Pierce, J. R. & Srago 1973: 17; Rudinsky 1979a: 409; Ryker & Rudinsky 1979: 211; Schultz & Bedard 1987; Wood, D. L. 1980b. **(ec)** Ball & Dahlsten 1972; Birch & Svihra 1979b; Borden 1983; Borden et al. 1981: 561; Brand et al. 1975; Brower 1974: 236; Byers 1989a, 1989b; Byers & Wood 1980; Chen & Borden 1989; Choo et al.

- 1987; Dahlsten & Stephen 1974: 1211; Elkinton & Wood 1980; Elkinton, Wood, & Hendry 1980; Felix, Uhrenholdt, & Parmeter 1971: 1697; Fox & Wood 1988: 439; Furniss, R. L. & Carolin 1977: 396; Gargiullo & Berisford 1981: 392; Goheen & Cobb 1980; Goheen et al. 1985; Gover & Finger 1978: 98; Hackwell 1973; Hoffer & Coster 1976: 130; Lanier et al. 1972: 1918; Light 1981b; Light, Birch, & Paine 1983; Mattson & Haack 1987; Nickle & Welch 1984: 638; Ohmart 1979; Ohmart & Voight 1982: 340; Piston & Lanier 1974: 250; Reid 1957b: 6; Richerson, J. V. & Borden 1972a; Stephen & Dahlsten 1976b: 292. **(hb)** Borden 1983; Bright & Stark 1973: 92; Byers 1983d; Chen & Borden 1989; Coulson & Witter 1984: 553; Elkinton, Wood, & Browne 1981; Fox & Wood 1988: 439; Fox, Wood, & Cane 1988: 429; Furniss, R. L. & Carolin 1977: 396; Lanier et al. 1972: 1919; Lindgren 1980a: 65; Ohmart 1979; Ryker & Rudinsky 1979: 211; Schultz & Bedard 1987; Wood, S. L. 1982b: 703. **(ds)** Anonymous 1973c, 1974f, 1978u; Ball & Dahlsten 1973; Bright & Stark 1973: 92; Elkinton & Wood 1980; Furniss, R. L. & Carolin 1977: 396; Hughes 1974; Lanier et al. 1972: 1918; Ohmart & Voight 1982: 337; Powell, J. A. & Hogue 1979: 315; Schultz & Bedard 1987; Wood, S. L. 1982b: 703. **(tx)** Bright & Stark 1973: 161; Lanier 1970: 1146; McNamara 1977: 196; Powell, J. A. & Hogue 1979: 313; Ryker & Rudinsky 1979: 211; Wood, S. L. 1982b: 703. **(ms)** Bertrand & Viala 1978; Brand & Scott 1985; Fish, Browne, & Bergot 1984; Carbers & Scott 1976; Hosomi, Araki, & Sakurai 1983; Karlson, Froyan, & Skattebol 1976: 664; Look 1970; Mori 1975a, 1976a; Mori, Takigawa, & Matsuo 1979; Riley, R. G. et al. 1974; Weber, R. & Schurig 1984.
- perroti** Swaine 1915b: 357. Holotype ♂; Isle Perrot, Quebec [Canada]; CNCI, Ottawa.
Figures: Bright 1976d: 153, Hopping 1964b: 973, Kusch 1967: 10.
Distribution: North America (Alberta, Manitoba, New Brunswick, Ontario, Quebec in Canada/ Michigan, Minnesota in USA).
Hosts: *Pinus banksiana*, *P. resinosa*.
References: **(ay)** Thomas, J. B. 1967. **(cn)** Doane et al. 1936; Graham 1939b, 1952; Swaine 1918a: 110, 117; Syme & Nystrom 1988: 58. **(ce)** Bushing 1965: 461; Cross & Moser 1971; Furniss, R. L. & Carolin 1977: 392; Graham 1939b, 1952; Lindgren 1980a: 65; Lindquist, E. E. 1969c; Lindquist, O. H. & Syme 1981: 61; Reid 1955: 311, 1957b: 5, 1957c: 111; Schedl 1932: 1–2; Thomas, J. B. 1970a; Tomalak, Welch, & Galloway 1989a, 1989b. **(hb)** Baker, W. L. 1972: 262; Balogun 1970: 233; Bright 1976d: 160; Chamberlin 1939: 428; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 392; Graham 1939b, 1952; Hopping, G. 1964b: 976; Lindgren 1980a: 65; Reid 1955: 311–312; Swaine 1918a: 110, 117; Wood, S. L. 1982b: 680. **(ds)** Beaulne 1956; Blatchley & Leng 1916: 639; Bright 1976d: 160; Chamberlin 1925, 1939: 428; Dodge 1938; Drooz 1985: 361; Evans, D. 1983: 33; Furniss, R. L. & Carolin 1977: 392; Hopping, G. 1964b: 976; Kleine 1934a: 151; Kusch 1967; Leng 1920: 341; Lindquist, O. H. & Syme 1981: 61; Syme & Nystrom 1988: 58; Wood, S. L. 1982b: 680. **(tx)** Blatchley & Leng 1916: 639; Bright 1967b: 676, 1976d: 153, 160; Chamberlin 1939: 428; Dodge 1938: 49–50; Evans, D. 1983: 33; Hoebeke 1978; Hopping, G. 1963c: 510, 1964b: 970, 973, 976; Kusch 1967: 10; Lindquist, O. H. & Syme 1981: 61; de Ruette 1970: 103; Swaine 1915b: 357–359, 1918a: 110, 117; Syme & Nystrom 1988: 58; Thomas, J. B. 1967; Titus, Meikle, & Harrison 1985: 77; Wood, S. L. 1982b: 680.
- perturbatus** (Eichhoff) 1869a: 274 (*Tomicus*).
Lectotype, sex?, "Illinois" [USA]; IRSNB, Brussels, designated by Lanier 1987a: 109.
Figures: Hopping 1965b: 536, Kusch 1967: 9.
Distribution: North America (Alaska/ Alberta, British Columbia, Manitoba, New Brunswick, Northwest Territories, Ontario, Quebec, Saskatchewan, Yukon in Canada/ Maine, Michigan, Minnesota, Montana in USA).
Hosts: *Picea glauca*, rare in *P. engelmannii*.
Notes: (1) The lectotype locality label is illegible.
References: **(ay)** Robertson 1961; Thomas, J. B. 1967. **(bv)** Baker, Hostetler, & Furniss 1977: 293; Furniss, M. M., Baker, & Hostetler 1976: 1300. **(cn)** Anonymous 1983c; Baker, Hostetler, & Laurent 1977; Baranyay & Stevenson 1966: 85; Beckwith 1972; Belyea & Prebble 1951; Brown, C. E. & Stevenson 1963: 97; Browne 1968b: 366; Chamberlin 1924; Craighead 1924: 28–91, 1927: 1–12; Downing 1957: 113; Graham 1952; Grant, J. 1969a: 177, 1969b: 183; Hofacker & Loomis 1982: 36, 1983: 38; Hofacker, Loomis, & Tucker 1984: 56; Holsten, Laurent, & Averill 1980: 65; Holsten, Werner, & Laurent 1980; Hopping, G. 1952; Keen 1938: 128, 1952c: 165; Kondo & Moody 1987: 108–109; Lindgren 1980a: 65; Lindquist, O. H. & Syme 1981: 61; McGuffin 1953: 117; McGuffin & Barker 1947: 57; Molnar et al. 1969: 117; Molnar, Harris, & Ross 1965: 102; Pierson 1927: 121; Reeks et al. 1945: 46; Ruppel 1967: 54; Smith, G. J. & Melvin 1974a, 1974b; Swaine 1913: 89, 1918a: 109, 115, 1924d: 9–10; Swaine et al. 1924: 21; Thomas, J. B. 1958: 393–404; Tripp & Blanel 1969: 104; Tripp, Robins, & Blanel 1970: 89; Werner 1988a, 1988b; Wood, C. S., Van Sickle, & Humble 1987: 21. **(ce)** Bushing 1965: 461; Craighead et al. 1927; Deyrup & Gara 1978: 275; Furniss, R. L. & Carolin 1977: 393; Gobeil 1936b; Graham 1952; Hunter & Davis 1963; Keen 1938: 128; Lindquist 1969c; Marsh 1979: 169; Mason, W. R. M. 1978; McAlpine

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- References: **(cn)** Hopkins 1904a: 25. **(hb)** Hopkins 1904a: 25; Schwarz 1894b: 255. **(ds)** Blatchley & Leng 1916: 639; Hagedorn 1910d: 54; Henshaw 1882: 269, 1885: 148; Hubbard & Schwarz 1878: 643; Kleine 1913b: 128, 1914b: 397, 1934a: 150; Leng 1920: 341; Swaine 1909: 123; Whitehouse 1920: 127–129; Wickham 1896a: 309. **(tx)** Blatchley & Leng 1916: 639; Hagedorn 1910a: 104; LeConte 1876: 363, 366; Swaine 1909: 123, 1918a: 15; Wood, S. L. 1982b: 677.
- interpunctus* Eichhoff 1878b: 241 (*Tomicus*). Syn-types, sex?; Sitka [Alaska]; Hamburg Museum, lost. Synonymy: Wood, S. L. 1977c: 386.
- References: **(cn)** Anonymous 1960i, 1960j: 4; Bongberg 1957, 1962; Broun 1940b; Brown 1954; Browne 1968b: 365; Doane et al. 1936; Downing 1957: 117; Felt 1926: 249, 267, 1930a: 249, 267; Hatch 1938: 194; Keen 1938: 128, 1952c: 165; Kinghorn 1955a: 501–502; Prebble 1954; Randall 1952: 4; Rodary 1959: 852; Ruppel 1967: 54; Schuder 1969: 76; Swaine 1914: 23, 1918a: 110, 116. **(ec)** Keen 1938: 128; Rodary 1959: 852. **(hb)** Browne 1968b: 365; Chamberlin 1939: 430, 1958: 172–173; Doane et al. 1936; Felt 1926: 250, 267, 1930a: 249, 267; Keen 1938: 128, 1952c: 165; Swaine 1918a: 110, 116. **(ds)** Bongberg 1957; Bongberg & Bennett 1960: 1; Brown 1943: 8; Browne 1968b: 365; Chamberlin 1917: 325, 1925, 1939: 430, 1958: 172–173; Evans 1950: 107; Evans, D., Lowe, & Hunt 1978; Felt 1926: 250, 267, 1930a: 249, 267; Gautreau 1974: 5; Hagedorn 1910d: 55; Hopping, R. 1922, 1924b: 125–128; Keen 1929a: 39, 1938: 128, 1952c: 165; Kleine 1912a: 218, 1913b: 128, 1934a: 150; Leng 1920: 341; Patterson & Hatch 1945: 153; Ruppel 1967: 54; Schuder 1969: 76; Smith, G. S. 1929; Swaine 1909: 124. **(tx)** Chamberlin 1939: 430, 1958: 172–173; Eichhoff 1878a: 390, 1878b: 241, 246; Hagedorn 1910a: 105; Keen 1929a: 39; Swaine 1909: 124, 1918a: 110, 116–117; Wood, S. L. 1977c: 386, 1979b: 135.
- pilifrons* Swaine 1912a: 353. Holotype ♀; Colorado [USA]; CNCI, Ottawa.
- Notes: (1) Wood 1982b: 686 (subspecies established).
- References: **(ay)** Hopping, G. 1964a: 117; Lanier & Kirkendall 1986: 87. **(cn)** Doane et al. 1936; Keen 1952c: 165; Massey 1956a: 20; Massey & Wygant 1954: 21; Price 1957: 94–95; Schuder 1969: 76; Swaine 1918a: 111, 119. **(cc)** Bushing 1965: 461; Davidson 1958, 1965: 461; Furniss, R. L. & Carolin 1977: 393; Kaya 1984; Knight 1961: 212; Lindquist 1969c; Marsh 1979: 212; Mason, W. R. M. 1978; Massey 1958: 28; Massey & Wygant 1954: 21; Poinar 1975: 162; Richerson, J. V. & Borden 1972a; Shook & Baldwin 1970. **(hb)** Chamberlin 1939: 430; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 393; Hopping, G.

1964a: 117; Keen 1952c: 165; Massey & Wygant 1954: 21; Swaine 1918a: 111, 119. (**ds**) Chamberlin 1939: 430; Furniss, R. L. & Carolin 1977: 393; Hopping G. 1965d: 166; Keen 1952c: 165; Kleine 1913b: 128; Leng 1920: 341; Schuder 1969: 76; Shook & Baldwin 1970: 1345–1354; Wood, S. L. 1982b: 686. (**tx**) Bright 1967b: 676; Chamberlin 1939: 430; Hoebeke 1978; Hopping, G. 1963c: 510, 1965d: 161; Hopping, R. 1939: 168; de Ruette 1970: 103; Swaine 1912a: 353, 1917: 31, 1918a: 111, 119; Wood, S. L. 1957c: 397, 1960b: 67.

***pilifrons pilifrons*:**

Figures: Hopping 1965d: 161, 163, 165.

Distribution: North America (W Colorado, Snowy Range in S Wyoming in USA).

Hosts: *Picea engelmannii*.

References: (**tx**) Wood, S. L. 1982b: 686.

***pilifrons utahensis* Wood** 1960b: 66. Holotype ♀; Logan Canyon, Utah [USA]; Wood Collection

Figures: Hopping 1965b: 536.

Distribution: North America (N Arizona, Colorado, S Idaho, Montana, Utah, W Wyoming in USA).

Hosts: *Picea engelmannii*.

Notes: (1) Wood 1982b: 688 (reduced to subspecies).

References: (**cn**) Flake & Germain 1970: 25; Frye 1971b: 25. (**ce**) Lindquist 1969c. (**hb**) Chamberlin 1958: 176; Wood, S. L. 1960b: 66. (**ds**) Chamberlin 1958: 176; Gast et al. 1989: 385; Hopping, G. 1965b: 534–539; Wood, S. L. 1948: 65, 1982b: 688. (**tx**) Chamberlin 1958: 176; Hopping, G. 1963c: 510, 1965b: 534–539; de Ruette 1970: 104; Wood, S. L. 1960b: 66, 1982b: 688.

***pilifrons sulcifrons* Wood** 1960b: 67. Holotype ♀; Santa Fe Ski Basin, New Mexico [USA]; CAS, San Francisco.

Figures: Hopping 1965d: 161, 163.

Distribution: North America (SW Colorado, New Mexico in USA).

Hosts: *Picea engelmannii*, *P. pungens*.

References: (**ay**) Hopping, G. 1964a: 117. (**cn**) Anonymous 1974e; Ostmark 1956: 8. (**hb**) Hopping, G. 1964a: 117. (**ds**) Anonymous 1974e; Hopping G. 1965d: 166; Wood, S. L. 1982b: 688. (**tx**) Hopping, G. 1963c: 510, 1963f: 213, 1965d: 161, 166; de Ruette 1970: 103; Wood, S. L. 1960b: 67, 1982b: 688.

***pilifrons thatcheri* Wood** 1975a: 29. Holotype ♀; Mt. Wheeler, Nevada [USA]; Wood Collection.

Distribution: North America (Mt. Wheeler in Nevada in USA).

Hosts: *Picea engelmannii*.

References: (**ds**) Wood, S. L. 1982b: 689. (**tx**) Wood, S. L. 1975a: 29, 1982b: 689.

***pini* (Say)** 1826: 257 (*Bostrichus*). Syntypes, sex?; probably Pennsylvania [USA]; Say Collection, lost. Figures: Bright 1976d: 153, 203, 212, Dillon & Dillon 1961: 801, 813, Hopping 1964b: 973, Ives & Wong 1958: 80, Ryker & Rudinsky 1979: 204, Wygant & Lara 1967: 118.

Distribution: North America (SE Alaska/ Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland, Nova Scotia, Ontario, Quebec, Saskatchewan, Yukon in Canada/ Chihuahua in Mexico/ Arizona, California, Colorado, Connecticut, District of Columbia, Georgia, Idaho, Maine, Maryland, Massachusetts, Michigan, Minnesota, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Utah, Vermont, Washington, West Virginia, Wisconsin, Wyoming in USA).

Hosts: *Pinus banksiana*, *P. contorta*, *P. jeffreyi*, *P. ponderosa*, *P. resinosa*, *P. strobus*, rare in other conifers.

Notes: (3) Sturm 1826: 76 (*dentatus*, nomen nudum, *pallipes*, nomen nudum, synonymy in LeConte 1876: 426, Eggers 1931c: 185).

References: (**ay**) Angst & Lanier 1979; Birch 1974b; Hopkins 1894g: 280; Mustaparta, Angst, & Lanier 1977, 1979; Mustaparta, Tommeras, & Lanier 1985; Mustaparta et al. 1984; Oester & Rudinsky 1975; Thomas, J. B. 1957; Thomas, J. B. & Krywienzyk 1966. (**bv**) Anderson, R. F. 1977: 17; Angst & Lanier 1979; Annala 1979: 12; Anonymous 1979a; Atkins 1966b: 954, 1967: 181; Bakke 1973; Baranchikov 1980, 1983: 12; Barr, B. A. 1969: 642; Billings, Gara, & Hrutford 1976: 177; Birch 1974b, 1978b; Birch & Light 1977; Birch, Light, & Mori 1977; Birch & Svihra 1979b; Birch & Wood 1975; Birch et al. 1980; Birgersson et al. 1984: 1049; Bletchly 1961: 16; Borden et al. 1981: 561; Callahan & Shifrine 1960: 146; Clemens 1916; Dethier 1947; Dewey, Ciesla, & Meyer 1974; Franklin 1968; Furniss, M. M. & Livingston 1979; Gardner 1957a; Gast, Stock, & Furniss 1988: 429; Geiszler, Gara, & Littke 1984; Goeden & Norris 1965b: 775; Gries et al. 1988: 429; Hertel, Hain, & Anderson 1969: 1084; Hosking & Knight 1975; Hunt & Borden 1988; Inscoc 1982; Inscoc & Beroza 1976: 147; Jacobson 1972; Kennedy, P. C. 1969; Klassen, Ridgway, & Inscoc 1982; Lanier & Burns 1978; Lanier et al. 1972; Light & Birch 1982; McMullen & Atkins 1962b: 1321; Miller, Borden, & Slessor 1989; Mustaparta 1979; Mustaparta, Angst, & Lanier 1977, 1979; Mustaparta, Tommeras, & Lanier 1985; Mustaparta et al. 1982, 1984; Oester & Rudinsky 1975; Orr 1935: 1021; Payne & Wood 1981: 492; Piston & Lanier 1974; Pitman 1966b; Plummer et al. 1976; Raffa & Klepzig 1989; Roelofs 1978; Rudinsky 1979a: 408; Sartwell, F. 1970; Schmitz, R. F. 1972, 1980, 1988; Schmitz, R. F. & Taylor 1969: 1–8; Seybert & Gara 1970: 947–950; Silverstein & Young 1976:

- 21; Swaby & Rudinsky 1976; Teale & Lanier 1988: 429; Thomas, J. B. 1970a: 47–48; Tumlinson, Mitchell, & Chambers 1976: 56; Vite, Bakke, & Renwick 1972: 1971; Vite & Pitman 1967: 683–701; Weber, R. & Schurig 1984; Wood, D. L. 1980b; Wood, D. L. & Vite 1961: 80; Wygant & Lara 1967; Young, J. C. et al. 1973. (cn) Anderson, R. F. 1948: 596–602; Anonymous 1960j: 28, 1960q, 1962h, 1963j, 1963y, 1964h, 1965b, 1965f, 1965i, 1966f, 1967f, 1968g, 1968p, 1969m, 1970t, 1971e, 1972h, 1973c, 1974f, 1975e, 1975f, 1977i, 1979a, 1979f, 1980m: 30, 1981j, 1982b, 1983f, 1989b; Applejohn & Howse 1982a; Baker, W. L. 1972: 262; Balch 1945; Barnhill 1947: 222; Becker 1955d, 1959b, 1962, 1964a, 1964c; Becker, Abbott, & Rick 1956: 644; Berisford 1969a, 1969b: 691–692; Bess 1944: 14–16; Birch & Svihra 1979b; Blackman 1919: 89, 1950; Bousfield & Coulson 1978; Bousfield, Hagle, & Kohler 1988; Britton 1930; Brown, A. W. A. 1941: 23; Brown, C. E., Hopkins, & Robins 1966: 86; Brown, R. M. & Winter 1981; Browne 1968b: 367; Buffam 1968: 1465–1466; Byler et al. 1986; Chamberlin 1924, 1939: 425; Chambers 1946: 78; Chenier & Philogene 1989a; Chittenden 1899; Clark 1953: 1; Clemens 1916: 287–298; Collins & Connola 1958: 335–338; Comtois 1988: 182; Cottrell 1967: 99; Cottrell & Erickson 1978: 5; Coulson & Witter 1984: 534; Craighead 1927: 1–12; Curtis & Hadfield 1977a, 1977b; Curtis & Johnson 1975, 1978; Dewey & Clinton 1980; Dewey, Ciesla, & Meyer 1974; Doane et al. 1936; Dolph & Hadfield 1971; Dolph & Pettinger 1968: 30, 1969: 7, 1971: 5; Dooling, Dewey, & Ciesla 1973: 29; Drooz 1985: 359; Erickson & Wood 1979: 5; Felt 1901: 487, 1906: 334–376, 1913: 101, 1924: 265, 1926: 247, 265, 1930a: 245, 249, 267, 1935; Felt & Bromley 1942: 170, 1943: 326–327; Felt & Rankin 1932: 406; Fitch 1858; Foster & Hook 1972: 7; Friend 1940: 222–322; Frye 1971b: 25; Furniss, M. M. 1981; Furniss, M. M. & Livingston 1979; Gardiner 1957b; Gentry, C. 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H. & Tegethoff 1970; Knapp 1985; Knapp et al. 1989: 10; Knopf, J. 1978, 1981; Knopf, J. et al. 1978: 31; Kohler, Dooling, & Bousefield 1985; Kondo & Moody 1987: 109; Kondo & Taylor 1985: 60; Lafrance 1921: 73; Landgraf 1966a: 27; Leach 1938: 24, 1940b: 219; Leach et al. 1937: 317; Lindgren 1980a: 65; Lindquist, O. H. & Syme 1981: 61; Livingston et al. 1988: 4; Loomis, Hofacker, & Tucker 1985: 14, 1986; Lotan & Perry 1983; Lowe & Moyer 1980; Lucht 1966: 31; Lyle & Leveck 1956: 27; Lyon 1959: 1–2; MacAloney & Schmiede 1962; MacAloney & Secrest 1944: 12–13; MacDonald 1930: 188; Martin, J. L. 1965; Martineau 1985: 76; McGregor 1977b; McGuffin 1953: 117; Mitchell, R. C. & Sartwell 1974; Molnar, Harris, & Ross 1965: 102, 1967: 116; Moody 1988: 84; Mortenson, Emond, & Melvin 1974; Moyer 1977; Neal 1979: 799; Newton, M. & Holt 1971; Ollieu, Stipes, & Hoffman 1980: 26; Orr, L. W. 1925: 1021, 1934: 58–59, 1937: 29; Orr, P. W. 1966, 1980: 26; Orr, P. 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B. 1961: 384, 1970a; Wallace 1940: 305; Watson 1927: 121; Wilson, L. F. 1977: 70; Wolcott & Montgomery 1933: 167; Wong & Melvin 1973; Wygant & Lara 1967. (ds) Acciavatti & Weiss 1974; Adams & Moore 1963; Anonymous 1926c: 519, 1963j, 1963y, 1964h, 1965b, 1966f, 1967f, 1968g, 1968p, 1969m, 1973c, 1974f, 1975e, 1975f, 1977i, 1979f, 1979h: 3, 1980m: 30, 1981j, 1982b, 1983f; Atkinson et al. 1991: 158; Atwood 1945: 31; Beaulne 1956; Berisford, Kulman, & Pienkowski 1970: 484; Berisford et al. 1971: 237; Blackman 1950; Blatchley & Leng 1916: 639; Bongberg & Bennett 1960: 1; Bright 1971a: 126, 1976d: 158; Bright & Stark 1973: 87; Britton 1920a; Brown, C. E., Hopkins, & Robins 1960: 86; Brown, R. M. & Winter 1981; Browne 1968b: 367; Chamberlin 1917, 1925, 1939: 425; Chapuis & Candeze 1853; Chittenden 1890, 1899a; Choo, Woo, & Kim 1981: 201; Ciesla & Bell 1968: 235; Curtis & Johnson 1975; Dewey, Ciesla, & Meyer 1974; Deyrup 1981b: 6; Dodge 1938; Drake 1921: 201–205; Drooz 1985: 359; Evans, D. 1983: 34; Evans, D., Lowe, & Hunt 1978; Felt 1926: 247, 265, 1930a: 245, 249, 265; Felt & Bromley 1932: 406; Frost & Dietrich 1929; Furniss, M. M. & Furniss 1972; Furniss, M. M. & Livingston 1979; Furniss, R. L. & Carolin 1977: 390; Gast et al. 1889: 385; Gautreau & Melvin 1974: 14; Gemminger & Harold 1872: 2691; Hagedorn 1910d: 57; Henshaw 1885: 148; Hopkins 1893a: 139, 1893b: 212; Hopping, G. 1950a, 1964b: 974; Hubbard & Schwarz 1878a: 666; Kleine 1913b: 128; Knoll 1931: 16; Kusch 1967; Lanier et al. 1972; Leach, Orr, & Christensen 1934: 315–341; Leng 1920: 341; Leonard 1928: 519; Lindquist, O. 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Still, Tidsbury, & Melvin 1974a, 1974b; Susut & Melvin 1974; Swaine 1909: 123, 125, 1911b: 88; Syme & Nystrom 1988: 58; Thomas, J. B. 1955: 341; Walker 1912: 59; Wallace 1940: 305; Watson 1927: 120–121; Wickham 1896a: 309, 1896c: 168; Winter, T. C. 1983: 50; Wolcott & Montgomery 1933: 167; Wood, S. L. 1957c: 398, 1972a: 421, 1982b: 691; Wygant & Lara 1967. (**tx**) Benoit 1985: 137; Blatchley & Leng 1916: 639; Bright 1976d: 153, 158, 203, 212; Chamberlin 1939: 425; Chapuis & Candeze 1853; Clemens 1916; Dillon & Dillon 1961: 801, 813; Dodge 1938: 48, 50; Eggers 1931c: 185; Eichhoff 1878b: 252; Evans, D. 1983: 34; Ferrari 1867a: 47; Hagedorn 1910a: 105; Hopping, C. 1963b: 63, 1963c: 509, 1964b: 970, 973–974; Ives & Wong 1988: 80; Kirby 1837: 191; Kusch 1976; LeConte 1868: 163, 1876: 364, 426; Lindquist, O. H. & Syme 1981: 61; Muesebeck 1950: 133; Parcly 1974, 1977, 1983; Parcly, Stone, & White 1968; Perris 1877a: 414; Provancher 1877: 570; Ryker & Rudinsky 1979: 204, 208; Sartwell, C., Schnitz, & Buckhorn 1971: 3; Say 1826: 257, 319; Schedl 1932: 1; Schwarz 1889b: 149, 1889d: 175; Sturm 1826: 76; Swaine 1909: 123, 125, 1911a: 213–214, 1912: 353, 1918a: 110, 115–116; Syme & Nystrom 1988: 58; Thatcher 1957: 28; Thomas, J. B. 1957: 4, 1967; Thomas, J. B. & Krywienzyk 1966; Titus, Meikle, & Harrison 1985: 78; Wood, S. L. 1957c: 398, 1972a: 421, 1982b: 691; Wygant & Lara 1967: 118; Zimmerman 1868: 147. (**ms**) Chararas 1971a: 853; Chenier & Philogene 1989a; Eckstein 1900c; Eiber 1989; Gries et al. 1988; Plumb 1958: 10; Rose, A. H. & Lindquist 1973: 92; Schnitz, R. F. 1972a; Slessor et al. 1985; Weber, R. & Schurig 1984.

praefrictus Eichhoff 1868a: 401 (*Tomicus*). Holotype ♂; Amerique boreali; IRSNB, Brussels. Synonymy: LeConte 1868: 163, 1876: 365; Eichhoff 1878b: 252.

References: (**ds**) Leng 1920: 341; Swaine 1909: 125. (**tx**) Eichhoff 1868a: 401; Lanier 1987a: 107; LeConte 1868: 163, 1876: 365; Swaine 1909: 125.

oregonis Eichhoff 1869a: 274 (*Tomicus*). Holotype ♂; Oregon [USA]; IRSNB, Brussels. Synonymy: Hopping 1964b: 974.

References: (**ay**) Schonherr 1970b; Wood, D. L. 1961a: 187. (**bv**) Miller & Keen 1960: 91, 104; Orr 1925: 1022; Schonherr 1970b; Sugden & Ross 1960a; Wood, D. L. 1961b. (**cn**) Anonymous 1939: 644, 1940i: 850, 1958a: 8, 1960g, 1960i, 1960j: 6, 1960q, 1961e, 1961h, 1961s, 1962h, 1963c: 17, 1963j, 1963n; Blackman 1931c; Bongberg 1956a, 1962; Buckhorn 1957; Buckhorn & Orr 1961: 18, 1962: 17; Chamberlin 1924, 1939: 427; Currie 1905: 73, 100; Doane et al. 1936; Eaton 1956: 6; Essig 1926: 520, 1958: 520; Felt 1926: 249, 267; Gillette 1903: 117; Graham 1939b, 1952; Hall 1946: 54; Hatch 1938: 194; Hawthorne 1962,

1963, 1964; Hopkins 1902c: 10, 1904a: 17, 41, 1905: 77, 1906d: 254; Hornbrook 1936: 620–622; Hutson 1933: 291–304; Johnson 1940; Keen 1929: 49, 1933: 297, 1938: 115, 1952c: 146, 150; Keen & Salman 1942: 855; Leach 1940b: 223; Mathiesen 1952: 274; McComb 1955: 3; McGugan et al. 1959; Miller, J. M. 1929: 994; Miller, J. M. & Keen 1960: 91, 104; Orr, P. W. 1963a, 1963b; Orr, P. W., Silver, & Ross 1960: 97; Ostmark 1956: 8; Patterson 1923: 38; Price 1957: 97; Rosecrans 1947: 8; Rudinsky & Terriere 1959: 485–488; Schuder 1969: 78; Silver & Ross 1959: 88, 1960: 99, 1961: 99, 1962b: 119; Smith, G. J. & Melvin 1974b; Struble & Hall 1955: 13; Sugden & Ross 1960a, 1960b: 3; Swaine 1914: 23, 1918a: 110, 117; Tunnock 1963: 10; Wear & Buckhorn 1955: 13; Weaver 1934: 101; Whiteside 1957: 2–3, 18, 31–43; Wood, R. O. & Doidge 1972: 21. (**ec**) Blackman 1931c; Burks 1979: 824; Bushing 1965: 461; Callahan & Shifrine 1960; Chamberlin 1939: 427; Craighead et al. 1927; Davidson 1966; DeLeon 1934a, 1934b: 297–317; Edmunds 1973: 776; Gahan 1938; Graham 1939b, 1952; Haliburton 1943; Heqvist 1959: 181; Holst 1936; Keen 1938: 115; Keen & Salmon 1942: 855; Knight 1961: 357; Leach 1940b: 223; Lindquist 1969c; Lindquist & Bedard 1961; Lu et al. 1957: 336; Marsh 1979: 148; Massey 1957: 32; Mathiesen 1952: 274; Mathre 1964: 353–362, 1966; McAlpine 1964; Miller, J. M. 1929: 994; Miller, J. M. & Keen 1960: 11, 91, 104; Poinar 1975: 162; Rumbold 1936: 419; Rust 1933: 733–734; Shifrine & Phaff 1956: 52; Sugden & Ross 1960a, 1960b: 3; Thompson, W. R. 1943: 59. (**hb**) Blackman 1931c; Bongberg 1959a; Chamberlin 1939: 427, 1958: 171–172; DeLeon et al. 1934; Doane et al. 1936; Eaton 1956; Essig 1926: 520, 1958: 520; Felt 1926: 249, 267; Graham 1939b, 1952; Hopkins 1904a: 17, 41; Keen 1929: 49, 1933b: 297, 1938: 115, 1952c: 146, 150; McComb 1955: 3; Miller, J. M. & Keen 1960: 91, 104; Orr 1925: 1022; Pierce, W. D. 1907: 292; Reid 1956: 3; Struble & Hall 1955: 13; Swaine 1918a: 110, 117. (**ds**) Anonymous 1958a: 8, 1960: 10, 1963j, 1963y; Blackwelder 1947; Bongberg 1956a; Chamberlin 1917: 327–328, 1939: 427, 1958: 171–172; Cockerell et al. 1907; Currie 1905; Eaton 1956; Essig 1926: 520, 1958: 520; Felt 1926: 249, 267, 1930a: 249; Ferrer 1942; Gantreau 1974: 5; Gemminger & Harold 1872: 2691; Hagedorn 1910d: 56; Henshaw 1885: 148; Hopkins 1902c: 10; Hopping, G. 1950a; Hopping, R. 1922, 1924b; Keen 1929a: 39, 1929c: 49, 1938: 115, 1952c: 146, 150; Kleine 1912a: 217, 262, 268, 1913b: 128, 1914b: 403, 1934a: 151; Lange 1937: 173; Leng 1920: 341; McComb et al. 1953: 3; Patterson & Hatch 1945: 153;

Rosecrans 1947: 8; Ruppel 1967: 54; Schuder 1969: 78; Smith, G. J. & Melvin 1974b; Smith, G. S. 1929; Sngden & Ross 1960a, 1960b; Swaine 1909: 124, 1914: 23; Thatcher 1935: 261; Wickham 1896a: 309; Wood, S. L. 1948: 64, 1951a: 128. **(tx)** Benoit 1955: 137; Chamberlin 1939: 427, 1958: 171–172; Cushman 1931: 301–304; Eichhoff 1869a: 274, 1878b: 250; Hagedorn 1910a: 105; Hopkins 1905b: 77; Hopping, G. 1963c: 512, 1964b: 974; Keen 1929a: 39; Lanier 1987a: 109; LeConte 1876: 435; Swaine 1909: 124, 1918a: 110, 117; Thatcher 1957: 28; Wood, S. L. 1951a: 128. **(ms)** Bongberg 1959a; Hatch 1938: 194.

rectus LeConte 1876: 365 (*Tomicus*). Lectotype ♀; Oregon [USA]; MCZ, Cambridge, designated by Wood 1982b: 691. Synonymy: Swaine 1918a: 117.

References: **(ds)** Chamberlin 1917; Cockerell et al. 1907; Hagedorn 1910d: 58; Henshaw 1882: 269, 1885: 148; Kleine 1913b: 128; Leng 1920: 341; Snow 1907: 188; Swaine 1909: 126; Wickham 1896a: 309. **(tx)** Hagedorn 1910a: 105; LeConte 1876: 365–367; Schedl 1940a: 349; Swaine 1909: 126, 1918a: 117; Wood, S. L. 1952b: 691.

laticollis Swaine 1918a: 116. Lectotype ♂; Ottawa, Ontario, Canada; CNCI, Ottawa, designated by Bright 1967b: 675. Synonymy: Wood 1957c: 398.

References: **(cn)** Swaine 1918a: 110, 116. **(hb)** Chamberlin 1939: 427; Swaine 1918a: 110, 116. **(ds)** Beaulne 1956; Chamberlin 1939: 427; Leng 1920: 341. **(tx)** Bright 1967b: 675; Chamberlin 1939: 427; Hoebeke 1978; de Ruelle 1970: 103; Swaine 1918a: 110, 116; Wood, S. L. 1957c: 398.

plastographus (LeConte) 1868: 163 (*Tomicus*). Holotype ♂; California [USA]; MCZ, Cambridge. Notes: (1) Lanier 1970: 415 (subspecies established).

References: **(ay)** Anonymous 1970q; Mankins, J. V. 1980; Oester & Rudinsky 1979; Thomas, J. B. 1967. **(bv)** Barr, B. A. 1969: 642; Eaton & Rodriguez 1967a: 25–26; Oester & Rudinsky 1979; Pitman 1966b. **(cn)** Anonymous 1960q, 1962h; Bongberg 1962; Browne 1968b: 367; Burke 1937: 28; Cottrell 1967: 99; Eaton & Rodriguez 1967a; Essig 1926: 520, 1958: 520; Herbert 1919: 337; Hopkins 1905: 75–76; Keen 1929: 49, 1938: 115, 1952c: 150; Lindgren 1980a: 66; Mankins, J. V. 1980; Molnar, Harris, & Ross 1967: 116; Powell 1905: 237–243; Ruhm 1964; Schwerdtfeger 1956b: 60, 1960b: 258; Swaine 1918a: 109; Van Dyke 1922: 180; Wood, R. O. & Doidge 1972: 21. **(cc)** Bedard 1966a: 936; Doane 1927; Furniss, R. L. & Carolin 1977: 390; Hirschmann & Wisniewski 1982, 1983; Keen 1938: 115; Kinn 1971; Lanier 1967: 1334–1335; Lindquist & Bedard

1961; Person 1940: 391; Rice 1965; Ruhm 1964; Schwerdtfeger 1960b: 258; Thompson, W. R. 1965: 27; Thompson, W. R. & Simmonds 1964: 24; Woodring 1966c. **(hb)** Anonymous 1970q; Bright 1976d: 160; Bright & Stark 1973: 89; Browne 1968b: 367; Chamberlin 1939: 423, 1958: 170–171; Eaton & Rodriguez 1967a; Essig 1926: 520, 1958: 520; Furniss, R. L. & Carolin 1977: 390; Johnson 1954a: 431; Keen 1929: 49, 1938: 115, 1952c: 150; Lanier 1967, 1970: 1406–1420; Lindgren 1980a: 66; Mankins, J. V. 1980; Powell 1905: 237–238; Schwerdtfeger 1956b: 50; Swaine 1918a: 109; Trimble 1922, 1924: 382–390; Wood, S. L. 1952b: 694. **(ds)** Blackwelder 1947; Bright 1976d: 160; Bright & Stark 1973: 89; Browne 1968b: 367; Chamberlin 1925, 1939: 423, 1958: 170–171; Choo, Woo, & Kim 1981: 201; DeLeon 1938; Eaton & Rodriguez 1967a; Essig 1926: 520, 1958: 520; Evans, D. 1983: 34; Fall 1906: 202; Fall & Cockerell 1907: 217; Furniss, R. L. & Carolin 1977: 390; Gautreau & Melvin 1974: 14; Gemminger & Harold 1872: 2691; Gillette 1903: 117; Hagedorn 1910d: 57; Henshaw 1882: 269, 1885: 148; Hopping, G. 1963e: 1206; Hopping, R. 1922; Johnson 1954a: 431; Keen 1925c: 150, 1929a: 38, 1929c: 49, 1938: 115, 1952c: 150; Kleine 1913b: 128, 1914b: 387, 1934a: 151; Lanier 1967; Leng 1920: 341; McCugan et al. 1959; Schedl 1963c: 159, 1971f: 147; Schwerdtfeger 1960b: 258; Swaine 1909: 125; Thomas, J. B. 1966; Wickham 1896a: 309; Wood, S. L. 1957c: 398, 1972a: 421, 1982b: 694. **(tx)** Blandford 1895b: 186–187, 1898c: 6; Bright 1976d: 153, 160; Chamberlin 1939: 423, 1958: 170–171; DeLeon 1938; Eggers 1929e: 50; Evans, D. 1983: 34; Hagedorn 1910a: 105; Hopkins 1905b: 75; Hopping, G. 1963b: 64, 1963c: 512, 1963e: 1206; Keen 1929a: 38; LeConte 1868: 163, 1876: 364; Mankins, J. V. 1980; Schedl 1955g: 43; Swaine 1909: 125, 1918a: 109–114; Thomas, J. B. 1967; Wood, S. L. 1957c: 398, 1972a: 421, 1982b: 694.

plastographus plastographus:

Figures: Bright 1976d: 153, Hopping 1963e: 1204.

Distribution: North America (British Columbia in Canada/ W California, Idaho, Oregon, Montana, Wyoming in USA).

Hosts: *Pinus contorta*, rarely in *P. ponderosa*.

References: **(ds)** Gast et al. 1989: 385. **(tx)** Bright 1976d: 153, 160; LeConte 1868: 163; Wood, S. L. 1982b: 694.

plastographus maritimus Lanier 1970a: 1417.

Holotype ♀; Rio del Mar, Santa Cruz Co., California [USA]; CNCI, Ottawa.

Distribution: North America (coastal California, Oregon in USA).

Hosts: *Pinus contorta*, *P. muricata*, *P. radiata*, *Picea sitchensis*.

Notes: (3) The status of this subspecies is

doubtful because extensive intergradation occurs in Oregon.

References: **(bv)** Ohmart & Voight 1982. **(cn)** Lindgren 1980a: 65. **(ec)** Ohmart & Voight 1982. **(hb)** Bright & Stark 1973: 90; Furniss, R. L. & Carolin 1977: 390; Lindgren 1980a: 65. **(ds)** Bright & Stark 1973: 90; Furniss, R. L. & Carolin 1977: 390; Lanier 1970: 1417; Ohmart & Voight 1982; Wood, S. L. 1982b: 694. **(tx)** Lanier 1970a: 1417; McNamara 1977: 196; Wood, S. L. 1982b: 694.

robustus (Knotek) 1899: 15 (*Tomicus*). Syntypes, sex?; Dalmatia; not located.

Distribution: Africa (Algeria), Asia (Syria/Turkey), Europe (Bulgaria/ Czechoslovakia/ Yugoslavia).

Hosts: *Pinus leucodermis*, *P. sylvestris*, uncommon in *Cedrus libanotica*.

Notes: (1) Eggers 1914: 40 (a variety of *erosus* Wollaston), Pfeffer 1955: 263 (a good species).

References: **(cn)** Chorbadzhievo 1929. **(ec)** Kleine 1908c: 214. **(hb)** Chorbadzhievo 1929: 147–186. **(ds)** Buresh & Lazarov 1956; Chorbadzhievo 1929: 147–186; Pfeffer 1936: 90, 1989a: 78. **(tx)** Eggers 1914: 40, 1921: 42; Knotek 1899: 15; Nunberg 1956c: 164; Pfeffer 1955a: 255; Schedl 1934f: 1645. **(ms)** Eggers 1910b.

erosus melanurus Reitter 1913a: 109. Syntypes, sex?; Mazedonien; NHMB, Budapest. Synonymy: Pfeffer 1955: 263.

References: **(tx)** Pfeffer 1955: 263; Reitter 1913a: 109; Schedl 1934f: 1645.

tridentatus Eggers 1921: 41. Lectotype ♂; Makri im Lycischen Taurus, Kleinasien; USNM, Washington, designated by Anderson & Anderson 1971: 34. Synonymy: Pfeffer 1955: 263.

References: **(cn)** Schimitschek 1944: 226. **(hb)** Schimitschek 1944: 226. **(ds)** Can 1964: 113; Schedl 1961b: 185. **(tx)** Anderson, W. H. & Anderson 1971: 34; Eggers 1921: 41–42; Nunberg 1956c: 164; Pfeffer 1955: 263; Schedl 1934f: 1645.

sexdentatus (Boerner) 1767: 78 (*Dermestes*). Syntypes, sex?; Europe; not located.

Figures: Chararas 1962c: 190, Grune 1979: 146, Joly 1976b: figs. 145, 244–245, Li & Zhou 1980: 190, Lieutier et al. 1984: 28–29, Pfeffer 1989a: pl. 10, Yin, Huang, & Li 1984: 136.

Distribution: Asia (N Burma/ Heilongjiang, Jilin, Shanxi, Sichuan, Yunnan in China/ Japan/ Korea/ Thailand/ Turkey/ E USSR), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxemburg/ Netherlands/ Norway/ Poland/ Portugal/ Romania/ Sardinia/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Pinus* spp., rare in *Picea* spp.

References: **(ay)** Al-Rabiai 1972; Buning 1979; Chararas 1977b, 1981, 1983; Chararas, Berton, & Stephanopoulos 1974; Chararas, Chipoulet, & Courtois 1979; Chararas & Koutroumpas 1977; Chararas et al. 1972; Dudich 1921: 136–140; Dufrenoy 1920; Escherich 1923b: 449, 484, 536; Feytaud 1950a; Francke-Grosmann 1950; Fuchs 1911a; Lange & Termier 1974; LeFay 1969; Lekander 1959b: 31; Lieutier 1982b, 1983, 1984b, 1984c, 1985; Lieutier, Jastrabsky, & Bonnafe 1984, 1985a, 1985b; Lieutier & Seureau 1981; Michalski 1962: 29–32; Nunberg 1950a: 135–136; Nusslin 1911a: 51, 156; Pignal, Chararas, & Bourgeay-Causse 1987; Scherb 1971; Scheyvrew 1889a: 21; Schonherr 1970b; Sedlaczek 1902b: 244; Termier 1970a: 721–732, 1975; Termier & Lange 1974, 1976; Wichmann 1912a: 10. **(bv)** Adlung 1958; Arefin 1983; Bakke 1968: 443–602, 1973; Barr, B. A. 1969: 642; Besceli & Ekici 1969; Boulhot, Lieutier, & Debouzie 1988: 439; Chararas 1966c, 1967a: 668–680, 1967b: 777–785, 1967c: 226–231, 1976b, 1977b, 1980a, 1982; Chararas & Berton 1967: 1471–1474; Chararas & Crosasso 1972a, 1972b; Chararas & Deschamps 1962; Chararas, Desveaux, & Kogane-Charles 1960: 921; Chararas et al. 1982: 1094; Dassler & Henker 1959: 74–76; Francke et al. 1986; Gavalis & Jakaitis 1981; Grune 1979: 147; Haggstrom 1976; Hallgren, Lekander, & Lonner 1972; Inscoc 1982; Inscoc & Beroza 1976: 147; Jactel & Lieutier 1987; Jotland 1975a; Klassen, Ridgway, & Inscoc 1982; Kohnle, Kopp, & Francke 1986: 316; Kohnle et al. 1988; Leluan, Leluan, & Chararas 1987; Luitjes 1976; Meixner 1938: 1218; Nunberg 1950a: 136; Nuorteva 1956c: 22; Paiva, Pessoa, & Vite 1988; Perrot 1977; Rozhkov 1970: 150; Rutledge, Chararas, & Ducauze 1988; Schonherr 1970b; Schonherr, Vite, & Serez 1983; Schwerdtfeger 1981: 189; Serez & Schonherr 1985; Silverstein & Young 1976: 21; Vite, Bakke, & Renwick 1972: 1971; Wichmann 1912a: 101; Wood, D. L. 1961b. **(cn)** Agafonov & Kuklin 1979; Androic 1966: 48; Anonymous 1948k: 4, 1978e, 1978i, 1979p; Ass & Funtikow 1941; Baeta Neves 1943b, 1952a, 1957, 1958; Bakke 1960: 310; Berdennikova 1954: 85; Bernhard 1929: 413–414; Besceli 1963; Besceli & Ekici 1969; Blandford 1892a; Bogdanova 1986; Borodajewsky 1915: 1222–1247; Borodin 1915: 1–87; Boyer 1840; Browne 1968b: 367; Bruneau 1950; Carle, Vincq, & Bizet 1979; Chararas 1961b: 81, 1978; Chorbadzhievo 1929; Dagei 1949: 12, 281–282; Defne 1954: 80–91; Donaubauer 1960; Dufrenoy 1920: 65–70, 81–87; Dussel 1949; Eckstein 1926: 575; Egorov 1958: 1492; Escherich 1917: 97–115, 1923b: 449, 484, 536, 1937; Esterberg 1959; Fang, Wang, & Chi 1985; Fedorov 1930: 225–229; Ferreira & Ferreira 1986; Feytaud 1946: 7, 1950a, 1950b; Fice 1961: 173–204; Foltz, Corneil, & Reich 1985; Frohlich 1926:

- 101; Gabler 1955; Geisthardt 1939: 243–246; Gois 1944; Golovyanko 1926: 1–S7; Gradojevic 1940; Grandi 1951; Gusev 1928: 144; Haget 1949; Haggstrom 1976; Hallgren, Lekander, & Lonner 1972; Hanson, H. S. 1937, 1940a, 1950: 18–26; Heqvist 1965; Hess 1914: 276, 1927: 1332; Hierholzer 1954a: 34a; Hoffmann 1952a: 104; Hrubik 1973; Hubault 1945; Ialzentkovski 1922: 7–9; Ishikura 1966; J. M. 1948: 463; Jablokoff 1953: 325; Jahn 1952a: 98, 1960b; Joly 1949b: 253, 1976; Judeich & Nitsche 1895: 494; Kailidis & Markalas 1988; Kamysnyi 1925: 14–16; Kazanski 1928: 861–915; Kharitonov 1924: 199–204; Kholodkovskii 1912: 313; Kobakhidze 1960: 1851; Koch 1913: 103; Koehler 1954: 177; Koehler & Zdanowicz 1954: 19–59; Koning 1939: 2015; Kontkanen 1932: 59; Kozikowsky 1929: 254; Kruel 1950: 6; Kurenzov 1935c: 189, 1948b: 143; Laidlav 1947: 52; Lekander 1954b: 16, 1955a: 136; Lekander, M. 1951: 106; Lesne 1913: 213; Liu et al. 1989; Lozovoi 1949a: 246, 1950c: 306, 1961: 91–113, 1966; Lozovoi & Tropin 1965, 1967; Maksymov 1950: 502; Malazgirt 1966: 63; Marie 1924: 328–330; Maslov et al. 1980; Maslina 1957: 15–17; Mathiesen-Kaarik 1953: 6; Mayne 1926: 234–245; Metrevelli 1955: 99; Mokrzecki 1928: 273, 1933: 286; Muller 1912: 186; Nestertschuk 1930: 172; Neves et al. 1986; Niemeyer 1974: 289, 1975: 154, 1976: 135, 1982; Niemeyer & Thalenhorst 1974; Nosek 1952b: 96; Nusslin 1883: 152, 1913: 202; Palm 1948b: 214; Pierce, W. 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sexdentatus junnanicus Sokanovskii 1959b: 94–95. Syntypes, sex?; Yunnan, China; Sokanovskii Collection.

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spinifer (Eichhoff) 1878b: 499 (*Tomicus*). Holotype, sex?; California [USA]; Hamburg Museum, lost.

Figures: Hopping 1963b: 65, 67.

Distribution: North America (California in USA). Hosts: *Pinus sabiniana*.

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sabinianae Hopping 1963b: 64 (*Orthotomicus*). Holotype ♂; Middletown, Lake Co., California [USA]; CAS, San Francisco. Synonymy: Wood 1973c: 177.

References: (**bv**) Barr, B. A. 1969: 642; Jacobson 1972. (**ec**) Berryman 1966a: 519; Hirschmann & Wisniewski 1982, 1983; Kinn 1971; Lindquist 1969c. (**hb**) Bright & Stark 1973: 83. (**ds**) Bright & Stark 1973: 83. (**tx**) Hopping, G. 1963b: 64–68; de Ruette 1970: 105; Wood, S. L. 1966b: 24, 1973c: 177.

stebbingi Strohmeier 1908: 69. Syntypes ♂; Himalaya occidentalis (Kulu); IPKE, Eherswalde.

Figures: Yin & Huang 1981: 563.

Distribution: Asia (Bhutan/ Xizang [Tibet] in China/ Himachal Pradesh, Kashmir, Punjab, Uttar Pradesh in India/ Nepal/ Pakistan).

Hosts: *Pinus excelsa*, *P. gerardiana*, *P. griffithii*, rare in *Abies webbiana*, *Cedrus deodara*, *Picea morinda*. References: (**ay**) Schmutzenhofer 1988. (**cn**) Schmutzenhofer 1988; Stebbing 1903a: 225, 1914: 562. (**ec**) Stebbing 1914: 562; Vitzthum 1921a: 58; Woodring & Moser 1970. (**hb**) Beeson 1922c: 496; Stebbing 1903a: 225, 1914: 562. (**ds**) Hagedorn 1910d: 59; Kleine 1913b: 128, 1914b: 271, 277; Pierce, W. D. 1917: 52; Schedl 1973d: 210; Schmutzenhofer 1988; Stebbing 1903a: 225. (**tx**) Eggers 1922d: 120; Hagedorn 1910a: 106; Holzschuh 1988: 481–485; Schmutzenhofer 1988; Stebbing 1914: 562; Strohmeier 1908b: 69.

ribbentropi Stebbing 1909b: 25 (*Tomicus*). Syntypes, sex?; Jamsar, Tehri Garhwas, Simla,

Bashahr, and Chamba States in North-West Himalaya Forests, India; FRI, Dehra Dun. Synonymy: Beeson 1922c: 496.

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blandfordi Stebbing 1909b: 27 (*Tomicus*). Syn-types 3 ♀; Shinghar, Chilgoza forests, North Zhob, Baluchistan, Pakistan; FRI, Dehra Dun. Synonymy: Wood 1988b: 189.

References: **(cn)** Pierce, W. D. 1917: 74; Stebbing 1914: 561. **(cc)** Stebbing 1914: 561. **(hb)** Beeson 1922c: 496; Stebbing 1909b: 15, 27, 1914: 561. **(ds)** Pierce, W. D. 1917: 74. **(tx)** Stebbing 1909b: 27, 1914: 561; Wood, S. L. 1988b: 189.

schmutzenhoferi Holzschuh 1988: 481. Holotype ♂; West-Bhutan, Changang, 3000 m; NHMW, Wien. Synonymy: Wood 1992a: 83.

References: **(cn)** Schmutzenhofer 1988. **(tx)** Holzschuh 1988: 481–485; Schmutzenhofer 1988; Wood, S. L. 1992a: 83.

tridens (Mannerheim) 1852: 357 (*Bostrichus*).

Lectotype ♀; Sitka Island, Alaska; MZU, Helsinki, designated by Wood 1982b: 684.

Notes: (1) Wood 1982b: 684 (subspecies established).

References: **(ay)** Hopping, G. 1964a: 117; Oester & Rudinsky 1975, 1979. **(bv)** Hopping, G. 1962b; Moeck et al. 1985; Oester & Rudinsky 1975, 1979. **(cn)** Chamberlin 1924; Doane et al. 1936; Holsten, Werner, & Laurent 1980; Keen 1952c: 165; Kondo & Moody 1987: 107; Lindgren 1980a: 66; Moody 1988: 82; Ruppel 1967: 54; Schuder 1969: 76; Smith, G. J. & Melvin 1974a; Swaine 1918a: 111, 119. **(cc)** Furniss, R. L. & Carolin 1977: 393; Werner & Holsten 1984. **(hb)** Annala 1971: 11; Annala et al. 1972: 22; Bakke 1968b: 647; Bright 1976d: 163; Bright & Stark 1973: 94; Chamberlin 1939: 431, 1958: 174; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 393; Holsten, Werner, & Laurent 1980; Hopping, G. 1962a, 1964a: 117, 1965d: 168; Keen 1952c: 165; Lindgren 1980a: 66; Moeck et al. 1985; Swaine 1918a: 111, 119; Wood, S. L. 1982b: 684. **(ds)** Bright 1976d: 163; Bright & Stark 1973: 94; Chamberlin 1939: 431, 1958: 174; Choo, Woo, & Kim 1981: 201; Evans, D. 1983: 34; Furniss, R. L. & Carolin 1977: 393; Gautreau 1974: 6; Gemminger & Harold 1872: 2691; Hagedorn 1910d: 60; Hamilton 1894a: 35–36; Henshaw 1885: 148; Hopping, G. 1965d: 168; Hopping, R. 1922; Keen 1929a: 39, 1952c: 165; Kleine 1912a: 218, 1913b: 128, 1934a: 150; Kusch 1967; Leng 1920: 341;

Patterson & Hatch 1945: 153; Ruppel 1967: 54; Schedl 1969a: 203; Schuder 1969: 76; Smith, G. J. & Melvin 1974a; Smith, G. S. 1930; Still, Tidsbury, & Melvin 1974a: 13; Swaine 1909: 124, 126; Werner & Holsten 1984; Wickham 1896a: 309; Wood, S. L. 1972a: 420, 1982b: 684. **(tx)** Bright 1976d: 154, 163; Chamberlin 1939: 431, 1958: 174; Eichhoff 1869a: 274, 1878b: 240–241; Evans, D. 1983: 34; Hagedorn 1910a: 106; Hopping, G. 1962b: 506, 1963a: 116, 1963c: 512, 1963f: 213, 1965d: 160, 163, 168; Hopping, R. 1939: 169; Keen 1929a: 39; Kusch 1967: 9; LeConte 1857: 22, 1868: 164, 1876: 363, 366, 1878: 240; Mannerheim 1852: 357, 1853: 273; Swaine 1909: 124, 126, 1915: 359, 1917: 30–31, 1918a: 111, 119; Wood, S. L. 1969c: 115, 1972a: 420, 1982b: 684. **(ms)** Hopping, G. 1961a: 1052.

tridens tridens:

Figures: Bright 1976d: 154, Hopping 1963f: 215, 1965d: 165, 167, Kusch 1967: 9.

Distribution: North America (Alaska/ British Columbia in Canada/ N California, Oregon, Washington in USA), only on the coastal margin.

Hosts: *Picea sitchensis*, uncommon in *P. glauca*.

References: **(tx)** Mannerheim 1852: 357; Wood, S. L. 1982b: 684.

interruptus Mannerheim 1852: 357 (*Bostrichus*).

Lectotype ♀; Sitka Island, Alaska; MZU, Helsinki, designated by Wood 1982b: 684.

Synonymy: Wood 1969c: 115.

References: **(ay)** Hopping, G. 1964a: 117. **(bv)** Hopping, G. 1962b. **(cn)** Chamberlin 1924; Doane et al. 1936; Hatch 1938: 194; Keen 1938: 128, 1952c: 165; Ruppel 1967: 54; Schuder 1969: 78; Swaine 1918a: 111, 118. **(cc)** Keen 1938: 128. **(hb)** Chamberlin 1939: 429, 1958: 174; Doane et al. 1936; Hopping, G. 1964a: 117; Keen 1938: 128, 1952c: 165; Swaine 1918a: 111, 118. **(ds)** Blatchley & Leng 1916: 639; Chamberlin 1917, 1925, 1939: 429, 1958: 174; Gautreau & Melvin 1974: 14; Gemminger & Harold 1872: 2690; Hagedorn 1910d: 55; Hamilton 1894a: 35; Henshaw 1885: 148; Hopping, G. 1965d: 160; Hopping, R. 1922; Hubbard & Schwarz 1878b: 643; Keen 1929a: 39, 1938: 128, 1952c: 165; Kleine 1912a: 218, 1913b: 128, 1914b: 397, 1934a: 150; Leng 1920: 341; Murayama 1957a: 37; Ruppel 1967: 54; Schedl 1969a: 203; Schuder 1969: 78; Swaine 1909: 124; VanDyke 1924: 26; Wickham 1896a: 309. **(tx)** Blatchley & Leng 1916: 639; Chamberlin 1939: 429, 1958: 174; Eichhoff 1869a: 274, 1878b: 238; Fall 1926: 208; Hagedorn 1910a: 105; Hopping, G. 1963c: 514, 1965d: 160–161; Keen 1929a: 39; LeConte 1857: 22, 1868: 164, 1876: 366; Mannerheim 1852: 357, 1853: 234; Swaine 1909: 124, 1918a:

111, 118; Wood, S. L. 1969c: 115, 1982b: 684. (ms) Hatch 1938: 194.

tridens engelmanni Swaine 1917: 30. Lectotype ♀; Rogers Pass, British Columbia [Canada]; CNCI, Ottawa, designated by Bright 1967b: 675.

Figures: Hopping 1965d: 163, figs. 10–11, Kusch 1967: 9.

Distribution: North America (Alaska/ Alberta, British Columbia, Northwest Territories, Yukon in Canada/ N California, N Idaho, Montana, Oregon, Washington, NW Wyoming in USA), occurs inland away from the coast.

Hosts: *Picea engelmannii*, *P. glauca*, *P. sitchensis*. Notes: (1) Wood 1982b: 684 (reduced to subspecies).

References: (ay) Hopping, G. 1964a: 117. (cn) Keen 1938: 128, 1952c: 165; Swaine 1918a: 111, 120. (ec) Keen 1938: 128; Lindquist 1969c. (hb) Chamberlin 1939: 431; Furniss et al. 1979: 1357; Hopping, G. 1961b, 1964a: 117; Keen 1938: 128, 1952c: 165; Swaine 1918a: 111, 120; Wood, S. L. 1982b: 684. (ds) Chamberlin 1925, 1939: 431; Cast et al. 1989: 385; Hopping, G. 1965d: 162; Hopping, R. 1922; Keen 1929a: 39, 1938: 128, 1952c: 165; Kleine 1934a: 150; Leng 1920: 341; Patterson & Hatch 1945: 153; Wood, S. L. 1957c: 397, 1982b: 684. (tx) Bright 1967b: 675; Chamberlin 1939: 431, 1958: 174; Hopping, G. 1963c: 514, 1963f: 213, 1965d: 161, 162; Hopping, R. 1939; Keen 1929a: 39; Kusch 1967: 9; Swaine 1917: 30, 1918a: 111, 120; Wood, S. L. 1957c: 397, 1977c: 386, 1982b: 684. (ms) Hopping, G. 1961b.

yohoensis Swaine 1917: 31. Lectotype, ♀; Yoho Valley, British Columbia [Canada]; CNCI, Ottawa, designated by Bright 1967b: 676. Synonymy: Wood 1977c: 386.

References: (ay) Hopping, G. 1964a: 117. (cn) Keen 1938: 128; Smith, G. J. & Melvin 1974a, 1974b; Swaine 1918a: 111, 120. (ec) Keen 1938: 128. (hb) Chamberlin 1939: 431, 1958: 175; Hopping, G. 1961b, 1964a: 117; Keen 1938: 128; Swaine 1918a: 111, 120. (ds) Chamberlin 1925, 1939: 431, 1958: 175; Hopping, G. 1965d: 168; Hopping, R. 1922; Keen 1929a: 39, 1938: 128; Kleine 1934a: 151; Kusch 1967; Leng 1920: 341; Smith, G. J. & Melvin 1974a, 1974b; Still, Tidsbury, & Melvin 1974a: 13; Susut & Melvin 1974. (tx) Bright 1967b: 676; Chamberlin 1939: 431, 1958: 175; Hoebeke 1978; Hopping, G. 1961b: 1052, 1963c: 514, 1963f: 213, 1965d: 161, 168; Hopping, R. 1939: 169; Keen 1929a: 39; Kusch 1967: 9; de Ruette 1970: 104; Swaine 1917: 31, 1918a: 111, 120; Wood, S. L. 1977c: 386.

dubius Swaine 1918a: 119. Holotype ♂; Rogers Pass, British Columbia [Canada]; CNCI, Ottawa. Synonymy: Wood 1957c: 397.

References: (cn) Keen 1938: 128, 1952c: 165; Schuder 1969: 76; Swaine 1918a: 111, 119. (ec) Keen 1938: 128. (hb) Chamberlin 1939: 430; Keen 1938: 128, 1952c: 165; Swaine 1918a: 111, 119. (ds) Chamberlin 1925, 1939: 430; Hopping, R. 1922; Keen 1929a: 39, 1938: 128, 1952c: 165; Kleine 1934a: 150; Leng 1920: 341; Schuder 1969: 76. (tx) Bright 1967b: 675; Chamberlin 1939: 430; Hoebeke 1978; Keen 1929a: 39; de Ruette 1970: 102; Swaine 1918a: 111, 119; Wood, S. L. 1957c: 397.

semiostrois Hopping, G. 1963f: 213. Holotype ♀; Kenai Peninsula, Alaska; CNCI, Ottawa. Synonymy: Wood 1977c: 386.

References: (ay) Hopping, G. 1964a: 117. (cn) Beckwith 1972; Smith, G. J. & Melvin 1974b. (hb) Hopping, G. 1964a: 117. (ds) Beckwith 1972a; Hopping, G. 1965d: 170; Kusch 1967; Smith, G. J. & Melvin 1974b; Still, Tidsbury, & Melvin 1974a: 13. (tx) Beckwith 1972, 1976a; Hopping, G. 1963b: 65, 67, 1963f: 213, 215, 1965d: 170; Kusch 1967: 9; de Ruette 1970: 103; Wood, S. L. 1977c: 386.

amiskwiensis Hopping, G. 1963f: 216. Holotype ♀; Amiskwi River, Yoho Nat. Pk., British Columbia [Canada]; CNCI, Ottawa. Synonymy: Wood 1977c: 386.

References: (ay) Hopping, G. 1964a: 117; Thomas, J. B. 1967. (cn) Beckwith 1972; Smith, G. J. & Melvin 1974a, 1974b. (hb) Hopping, G. 1964a: 117. (ds) Beckwith 1972a; Bright 1964a: 170; Evans, D., Lowe, & Hunt 1978; Gautreau 1974: 5; Kusch 1967; Smith, G. J. & Melvin 1974a, 1974b; Still, Tidsbury, & Melvin 1974a: 13. (tx) Beckwith 1972a; Hopping 1963b: 215, 1963f: 215–217, 1965d: 160–166; Kusch 1967: 9; de Ruette 1970: 102; Thomas, J. B. 1967; Wood, S. L. 1977c: 386.

typographus (Linnaeus) 1758: 355 (*Dermestes*). Syntypes, sex?, Europa; not located.

Figures: Bakke 1960: 306, Balachowsky 1949a: 9, 16, 264, Barbey 1925: 61, Brandt 1960: pl. 28, Chararas 1961c: 95, Duffy 1953: 11, Grme 1979: 148, Nobuchi 1974: pls. 2–3, Pfeffer 1989a: pls. 1, 10, 14, Postner 1974: 453, Schwerdtfeger 1981: 191, Tsai & Li 1959: 101.

Distribution: Africa (Algeria), Asia (Heilongjiang, Jilin in China/ Japan/ Korea/ Kuril Islands/ Turkey/ Kamchatka, Sakhalin Island, Siberia in E USSR), Europe (Austria/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxembourg/ Norway/ Poland/ Portugal/ Romania/ Sardinia/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Picea* spp., rare in *Pinus* spp., *Larix* sp.

References: (ay) Anderbrandt 1988b; Beal 1927; Berlese 1909; Bombosch 1952; Chararas 1956a: 113–213, 1956c, 1977b; Chararas, Courtois, & Debris 1961; Chararas & Koutroumpas 1977;

- Chararas et al. 1963: 383–395; Courtois, Chararas, & Debris 1961b; Courtois et al. 1965; Crowson 1935; Dicken 1981; Doganlar 1984; Escherich 1914: 113, 170, 311, 1923b: 429, 485, 575; Feytaud 1950a; Francke-Grossmann 1959; Fuchs 1911a; Gries 1985; Hallberg 1982a, 1982b, 1984; Hansen, T. E., Viik, & Luik 1980a, 1980b; Hennequy 1804: 175; Imhoff 1856: 228; Koizumi & Yamaguchi 1967; Kulm 1949a: 245; Leisewitz 1906: 95; Lekander 1959b: 50, 1959d: 91; Leufven, Bergstrom, & Falsen 1984; Marcus 1930: 644; Merker & Wild 1954: 451; Moeler-Racke 1952: 247, 259; Mustaparta et al. 1984; Negru 1968b: 802; Novak, V. et al. 1976; Nunberg 1928a: 141, 1950a: 138; Nusslin 1911a: 61, 150, 155, 254, 338; Reichenbach-Klinke 1952: 462, 1953: 338; Robertson 1961; Rudinsky 1979b; Scherb 1971; Scheyvrew 1889a: 21; Schneider-Orelli 1913: 32, 1947: 3, 510–542; Schoenischen 1921: 47; Schoneherr 1958: 227–228, 1970b; Schroder 1901: 461, 1902: 85; Schwerdtfeger 1929: 336; Sedlacek 1902b: 244, 1907: 82; Skirkevicius et al. 1984; Tommeras 1985; Tommeras, Mustaparta, & Gregoire 1984; Vogel 1986, 1988; Wichmann 1912a: 10; Zoch 1965; Zumr, Nemec, & Stary 1985; Zumr & Soldan 1981. (bv) Abgrall 1986; Adlung 1958, 1960: 430, 1979; Adlung, Schicke, & O'Svath 1986; Anderbrandt 1985; Anderbrandt & Schlyter 1989; Anderbrandt, Schlyter, & Birgersson 1985; Anderbrandt, Schlyter, & Lofqvist 1988a, 1988b; Annila 1971a: 11, 1975: 8; Annila & Petaito 1978; Anonymous 1973d, 1974u, 1977s; Arefjev 1970, 1974; Austara 1978d; Austara, Bakke, & Midtgaard 1984, 1986; Austara & Pettersen 1977; Bakke 1969: 309–310, 1970b, 1971b, 1973, 1976, 1977, 1979c, 1981a, 1981c, 1981d, 1982, 1987; Bakke & Austara 1973, 1978; Bakke, Austara, & Pettersen 1977; Bakke & Riege 1982; Bakke & Saether 1978; Bakke, Saether, & Austara 1989; Bakke & Vite 1987; Balazy 1968; Becker, P. & O'Svath 1981; Bengtsson 1975a; Berryman 1988; Bicevskis & Ozols 1981; Birgersson 1989; Birgersson & Bergstrom 1989; Birgersson & Leufven 1988; Birgersson et al. 1984, 1988; Bombosch 1978, 1983, 1987, 1988; Bombosch & Johann 1985; Bombosch, Johann, & Ramisch 1982; Bombosch et al. 1985; Borden 1968; Borsodi, Gal, & Kiss 1985; Butovitsch 1971; Byers 1983b, 1984b, 1989a, 1989b; Byers, Anderbrandt, & Lofqvist 1989; Chararas 1962f, 1976b, 1977b, 1980a, 1982; Chararas & Deschamps 1962; Chararas, Desveaux, & Kogane-Charles 1960: 921; Chararas et al. 1982: 1094; Christiansen 1981, 1985; Christiansen & Bakke 1988, 1989; Christiansen & Huse 1980; Dickens 1978, 1981; Du 1987; Dubbel et al. 1985; Duelli, Studer, & Naf 1986; Egger, A. & Ferenczy 1980, 1981; Ehnstrom 1975; Eidmann 1965b, 1983, 1987; Eidmann et al. 1986, 1987; Ellefsen 1980e, 1981; Furniss, M. M. & Livingston 1979; Gal et al. 1985; Gavelis & Jakaitis 1981, 1987; Gries 1985; Gries et al. 1989; Grijpma & Schuring 1984; Grune 1979: 149; Haggstrom 1976; Hallgren, Lekander, & Lonner 1972; Hansen, K. 1983; Harding & Ravn 1985; Helland, Hoff, & Anderbrant 1984; Heuer & Vite 1984a; Hierholzer 1951b; Hilker 1984; Hornvedt & Christiansen 1979; Inscoc 1982; Ivanchenko et al. 1979; Jacobson 1972; Jaln 1981, 1982; Jakaitis & Gavelis 1984; Johann 1986, 1986b: 115; Johnson 1960a: 17; Jotland 1975a, 1975b; Karlsen, Froyen, & Skattebol 1976; Kevdina 1897: 108; Klassen, Ridgway, & Inscoc 1982; Klimetzek & Adlung 1977; Klimetzek & Franke 1980; Klimetzek & Kopp 1983; Klimetzek et al. 1979, 1986: 270; Kohnle et al. 1988; Konig, E., Vite, & Bogenschutz 1981; Krawielitzki et al. 1977; Krol & Bakke 1985, 1988; Kuchava 1976; Lanne et al. 1989; Lebedeva, Vasilyeva, & Scherbakova 1975; Leluan, Leluan, & Chararas 1987; Leufven & Birgersson 1987; Leufven et al. 1984; Lie & Bakke 1981; Lindmo 1973; Lindstrom et al. 1989; Lnitjes 1976; Madziara-Borusiewicz & Strzelecka 1977; Magema, Gaspar, & Severin 1982; Maksymov 1950; Maksymov, Jansen, & Jaggi 1982; Martinek 1957b: 281; McGregor & Miller 1989; Meixner 1937: 1214; Merker 1960, 1965a; Mikhelson & Ounap 1983; Miller, M. 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(cn) Aalde 1979; Abgrall 1986; Abgrall & Schvester 1987; Aclouque 1914; Adam 1970; Adlung 1960: 430–435, 1979; Adlung, Schicke, & O'Svath 1986; Akselsen 1979; Alexandrov 1958; An 1979; Androic 1966: 49; Annala 1969: 161–208; Anonymous 1874a: 380, 1874d, 1874g: 116, 1901b: 97, 1947j: 68, 1948k: 1, 1950e: 99, 1952g: 212, 1971p, 1972i, 1974i, 1974u, 1976j, 1977r, 1977t, 1978i, 1978m, 1979j, 1979k, 1979p, 1979t, 1979u, 1980b, 1980i, 1984b, 1985d, 1988i; Antoine 1935: 264; Arefjev 1974; Arnberg, Lekander, & Wastenson 1973; Ass & Funtikow 1941: 157–159; Austara 1972, 1975, 1978a, 1978b; Austara et al. 1983; Badoux 1918; Baisch 1954: 324; Bakke 1960a: 306, 1960b: 357, 1966, 1978b, 1979a, 1981b, 1981c, 1981d, 1985a, 1985b, 1987, 1988a, 1988b, 1989; Bakke & Riege 1982; Bakke & Saether 1978; Bakke, Saether, & Kvamme 1983; Bakke & Strand 1981; Balazy 1968; Bambulovic 1930: 446; Barbey 1914: 41–81, 1922b, 1925: 61; Barlow 1966; Barth 1878; Becker 1950; Becker, P. & O'Svath 1981; Bedel 1888b: 401, 417; Bedus 1946; Beeson 1918: 114–124; Bejer-Petersen 1959a, 1978, 1981; Bengtsson 1975a, 1975b; Berdennikova 1949; Bernhard 1875; Bernhard 1928: 413, 1929; Berryman 1987, 1988; Berryman & Stenseth 1989; Berryman, Stenseth, & Isaev 1987; Berwig 1950; Berwig & Schuhly 1964: 17–20; Bevan 1964b, 1987: 113; Birgersson & Leufven 1988; Bjorkheim et al. 1977; Blanchere & Robert 1889; Blondein 1874a, 1874b, 1875, 1876; Bohm 1932, 1947; Bombosch 1952: 675–678, 1954: 239, 1972, 1978, 1987, 1988a, 1988b; Bombosch, Johann, & Ramisch 1982; Borcea 1924: 221–260, 1930: 271; Borodajewsky 1930: 249–251, 805–811, 1931: 157–159; Brahm 1950; Brannmanis 1960: 326; Browne, F. 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octodentatus Paykull 1800: 146 (*Bostrichus*). Syn-types, sex?; Sweden; not located. Synonymy; Thomson 1865: 363.

References: (tx) Gyllenhal 1827: 353; Hartig 1834: 108; Paykull 1800: 146; Schedl 1950a: 79; Thomson 1865: 363; Zetterstedt 1840: 192.

typographus japonicus Niisima 1909: 147. Syn-types, sex?; Japan: Hokkaido, Iburi Prov. Tomakomai, Ishikari, Jozankei, Uriu, Hoppo; Nobuchi Collection, Ibaraki. Synonymy: Sokanovskii 1954: 19.

Notes: (1) This form has been treated variously as a variety, form, or geographical race by most authors. Its status as a subspecies is doubtful.

References: (ay) Koizumi & Yamaguchi 1967. (bv) Furuta 1989; Kobayashi et al. 1984; Koizumi 1969, 1977; Koizumi & Yamaguchi 1967; Yamaguchi 1963; Yamaguchi & Chikara 1967; Yamaguchi et al. 1963. (cn) Anonymous 1980g; Furuta & Takahashi 1984; Inouye 1954: 167–180, 1963: 160–164; Inouye & Yamaguchi 1955: 72–94; Kobayashi et al. 1984; Koizumi 1969, 1977; Nishiguchi 1957: 69–78; Tamanuki 1933: 1–54, 1940a: 262; Yamane 1981: 471; Yanagisawa 1952: 105; Zhang et al. 1958: 28. (ce) Arnoldi et al. 1955: 721; Kabir & Giese

1966a: 891; Kamijo 1981; Nishiguchi 1959: 270–274, 1960b: 279–284, 1960c: 64–73; Yamaguchi 1959: 147–153, 1963; Yamaguchi & Chikara 1967; Yamaguchi & Koizumi 1969: 39–47; Yamaguchi et al. 1963. (hb) Furuta 1989; Koizumi & Yamaguchi 1967; Krivolutsкая 1965: 241, 1973: 141; Nishiguchi 1960b; Yamaguchi 1963; Yamaguchi & Chikara 1967; Yamaguchi et al. 1963: 53–135. (ds) Anonymous 1980g; Kleine 1913b: 128, 1934a: 150; Kono 1935b: 65; Kono & Tamanuki 1939: 88, 95; Krivolutsкая 1956: 826–839, 1965: 240, 1973: 141; Kurenzov 1957b: 19; Murayama 1936: 113–120, 1937: 373; Nobuchi 1974: 52. (tx) Hagedorn 1910a: 105; Niisima 1909: 147, 1910a: 2, 1929: 376–381; Nobuchi 1974: 52, pl. 2–3; Schedl 1934f: 1645, 1950a: 81; Sokanovskii 1954: 19. (ms) Yamane 1981: 471.

ussuriensis Reitter 1913a: 107. Syntypes, sex?; Ostsibirien: Ussuri; NHMB, Budapest.

Distribution: Asia (Ussuri in E USSR).

References: (hb) Spessivtsev 1921b: 222; Stark 1952: 400. (ds) Stark 1952: 400. (tx) Reitter 1913a: 107; Schedl 1934f: 1645, 1950a: 78; Stark 1952: 400.

woodi Thatcher 1965: 493. Holotype ♀; Beaver Creek, Logan Canyon, Utah [USA]; USNM, Washington.

Figures: Hopping 1965b: 536, Kusch 1967: 10, Thatcher 1965: 494–495.

Distribution: North America (Alberta in Canada/ N Arizona, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming in USA).

Hosts: *Pinus flexilis*, *P. strobiformis*.

References: (bv) Barr, B. A. 1969: 642. (cn) Anonymous 1968g, 1969h. (ce) Furniss, R. L. & Carolin 1977: 393; Lindquist 1969c. (hb) Furniss, R. L. & Carolin 1977: 393; Wood, S. L. 1982b: 680. (ds) Anonymous 1968g, 1969h; Bright 1976d: 162; Furniss, R. L. & Carolin 1977: 393; Gast et al. 1989: 385; Hopping, G. 1965b: 540; Kusch 1967; Wood, S. L. 1972a: 420, 1982b: 680. (tx) Bright 1976d: 162; Hopping, G. 1965b: 540; Kusch 1967: 10; Thatcher, T. O. 1965: 493–495; Wood, S. L. 1972a: 420, 1982b: 680.

Tribe Dryocoetini Lindemann

Dryocoetoideae

References: Lindemann 1876: 165.

Dryocoetinae

References: Nusslin 1911: 432.

Dryocoetini

References: Lucas 1920: 24; Murayama 1957a: 589; Reitter 1913a: 28; Wood, S. L. 1978a: 113, 1982b: 67, 1986a: 70.

Dryocoetina

References: Balachowsky 1949a: 175; Nunberg 1954: 16.

Thamnurinae

References: Nusslin 1911: 377, 433.

Thamnurgina

References: Balachowsky 1949a: 163; Nunberg 1954: 16; Reitter 1913a: 27.

Taphrorychini

References: Reitter 1913a: 29.

Taphrorychina

References: Nunberg 1954: 17.

Taphrorychinina

References: Balachowsky 1949a: 187.

Genus *Tiarophorus* Schreiner

TIAROPHORUS SCHREINER 1882: 246. Type-species:

Tiarophorus elongatus Schreiner, monobasic.

HYPASPISTES HAGEDORN 1908: 374. Type-species:

Hypaspistes camerunus Hagedorn, monobasic, preoccupied by Waterhouse 1886.

References: (tx) Hagedorn 1908: 374, 1909a: 377; Schedl 1961k: 738, 1962r: 94.

ORTHASPISTES HAGEDORN 1909a: 733. Type-species:

Hypaspistes camerunus Hagedorn. Synonymy: Eggers 1927: 196.

References: (tx) Eggers 1920: 124, 1927a: 196; Hagedorn 1909a: 733; Nunberg 1967a: 67; Schedl 1952i: 9, 1961k: 738, 1962r: 94.

PSEUDOTHAMNURGUS Eggers 1912b: 115. Type-species:

Thamnurgus scrutator Pandelle, subsequent designation by Schedl 1961k: 738. Synonymy: Schedl 1952i: 9.

References: (tx) Balachowsky 1949a: 172; Eggers 1912b: 115; Gardner 1934: 1-17; Peverimhoff 1949: 300; Reitter 1913a: 84; Schedl 1952i: 9, 1958k: 142, 1961k: 738, 1962r: 94; Wichmann 1913: 116-118.

Keys: Wichmann 1913: 116-118.

References: (hb) Wood, S. L. 1986a: &3. (ds) Hagedorn 1910d: 68; Wood, S. L. 1986a: 73. (tx) Eggers 1920: 124, 1927: 196; Gardner 1934: 2-3, 10; Hagedorn 1909a: 733, 1910a: 89, 109-110; Hopkins 1914: 130, 133, 1915c: 226; Nunberg 1961a: 343, 1967a: 63-70; Reitter 1913a: 84, 89-90; Schedl 1939i: 382-383, 1952i: 9, 1957e: 865-883, 1958k: 142-143, 1961k: 738, 1962r: 95,

1965e: 349-379; Schreiner 1882: 246; Wichmann 1913: 116-121; Wood, S. L. 1986a: 73.

camerunus (Hagedorn) 1908: 374 (*Hypaspistes*). Syntypes 2, ♂ ♀; Kamerun; MNB, Berlin.

Figures: Nunberg 1967a: 68.

Distribution: Africa (Cameroon).

Hosts: (1) Schedl 1962r: 94 (to *Tiarophorus*).

References: (ds) Hagedorn 1910d: 77; Kleine 1913b: 145, 1914b: 312; Schedl 1965g: 20, 1972e: 281. (tx) Eggers 1920: 124; Hagedorn 1908: 374, 1909a: 733, 1910a: 115; Hopkins 1914: 123, 126, 132; Nunberg 1967a: 64, 68; Schedl 1961k: 738, 1962r: 94.

capucinus Schedl 1965e: 369. Holotype ♂; Ghana, Bobiri F. R.; Schedl Collection in NHMW, Wien. Distribution: Africa (Ghana).

Hosts: *Millettia* sp.

References: (ds) Schedl 1965e: 369, 1972e: 282, 1979c: 52.

decellei Browne 1973a: 285. Holotype ♂; Zaire; Yangambi; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Strombosia* sp.

References: (tx) Browne 1973a: 285.

elongatus Schreiner 1882: 247. Syntypes, sex?; Guinea ora Afric; Schedl Collection in NHMW, Wien.

Figures: Schedl 1961k: 740.

Distribution: Africa (Ghana/ Guinea).

Hosts: *Albizzia gummifera*.

References: (hb) Roberts 1969: 129. (ds) Hagedorn 1910d: 68; Kleine 1913b: 135, 1914b: 307; Schedl 1961k: 740, 1962h: 59, 1962k: 1079, 1964j: 41, 1965e: 352, 1967e: 214, 1971g: 192, 1972e: 282, 1979b: 415. (tx) Hagedorn 1910a: 110; Hopkins 1914: 130, 133; Schedl 1939i: 383, 1961k: 740, 1962k: 1079, 1965e: 369, 1979c: 90; Schreiner 1882: 247.

gardneri Schedl 1957e: 874. Holotype, sex?; Kenya, Londiani; BMNH, London.

Distribution: Africa (Kenya).

Hosts: *Olea* sp., *Polyscias kikuyuensis*.

References: (ds) Schedl 1961k: 741. (tx) Schedl 1957e: 874, 1959q: 705, 1961k: 741, 1979c: 103.

hyaspistis Schedl 1941d: 399. Holotype, sex?; Spanisch Guinea, Nkolenlangan; Schedl Collection in NHMW, Wien.

Distribution: Africa (Equatorial Guinea).

References: (ds) Schedl 1964j: 41. (tx) Schedl 1941d: 399, 1961k: 741.

intermedius Schedl 1954e: 77. Lectotype, sex?; Gold Coast, Mpraeso, Sunyani; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 127.

Distribution: Africa (Ghana).

Hosts: *Baphia pubescens*, *Cola caricifolia*, *Lonchocarpus sericeus*.

Notes: (3) Schedl 1961k: 660 (treated in *Dryocoetes*).

References: (ds) Schedl 1961k: 660; Thompson, G. M. 1963: 69. (tx) Numberg 1961a: 344; Schedl 1954c: 50, 77–78, 1961k: 660, 1979c: 127.

mediterraneus (Eggers) 1910f: 560 (*Dryocoetes*). Syntypes 1 ♂, 1 ♀; France; 1 ♂ Doderer Collection, 1 ♀ Eggers Collection, in NHMW, Wien.

Figures: Balachowsky 1949a: 168, 170, 174.

Distribution: Africa (Algeria), Europe (France).

Notes: (1) Wichmann 1913: 119 (to *Tiarophorus*). Schedl 1979c: 150 (citation of holotype invalid).

(3) Balachowsky 1949a: 175 (treated in *Pseudothamnurgus*).

References: (bv) Grune 1979: 95. (cn) Grandi 1951. (hb) Grandi 1951; Postner 1974: 427. (ds) Grune 1979: 95; Kleine 1913b: 135; Postner 1974: 427; Sainte-Claire & Mequignon 1938: 446; Schaufuss 1915: 1240. (tx) Balachowsky 1949a: 175; Eggers 1910f: 560, 1912b: 116–117; Grune 1979: 95; Hopkins 1914: 128; Postner 1974: 427; Reitter 1913a: 89; Schedl 1934f: 1642, 1979c: 150; Teocchi 1971: 74; Wichmann 1913c: 117, 119.

nitidicollis (Reitter) 1887b: 197 (*Dryocoetes*).

Holotype ♀; Marokko (Casablanca vidi Wichmann 1913: 120); NHMB, Budapest.

Distribution: Africa (Morocco).

Notes: (3) Reitter 1890: 175 (treated in *Lymantor*).

References: (ds) Kleine 1913b: 135, 1914a: 18; Hagedorn 1910d: 64; Lovendal 1890c: 209; Reitter 1894a: 67. (tx) Hagedorn 1910a: 93; Lovendal 1890c: 209; Peyerimhoff 1949: 301; Reitter 1887b: 196, 1890: 175, 1894a: 67, 1913a: 89–90; Schedl 1934f: 1642, 1964m: 309; Wichmann 1913c: 120–121.

normandi (Eggers) 1910e: 37 (*Thamnurgus*). Holotype ♀; Terni, provinciae algericae oraniensis loco; Normand Collection.

Distribution: Africa (Algeria/ Senegal).

Hosts: *Callotropis* sp.

References: (ds) Kleine 1913b: 135, 1914a: 16; Schedl 1962k: 1073. (tx) Balachowsky 1949a: 175; Eggers 1910e: 37, 1912b: 116–117, 1914: 40; Hagedorn 1910a: 93; Peyerimhoff 1949: 300; Reitter 1913a: 89; Schedl 1934f: 1642, 1964m: 309; Wichmann 1913c: 117–118.

elegans Wichmann 1913c: 118 (*Pseudothamnurgus*). Syntypes 2 ♂; Otay, Alger; 1 in Pic Collection, 1 in Wichmann Collection. Synonymy: Balachowsky 1949a: 175.

References: (ds) Kleine 1913b: 135, 1914a: 16. (tx) Balachowsky 1949a: 175; Eggers 1936c: 37; Peyerimhoff 1949: 300; Schedl 1934f: 1642; Wichmann 1913c: 117–118.

praeurptus (Eggers) 1925: 158 (*Pseudothamnurgus*). Lectotype ♀; Tenasserim (Birma); USNM, Washington, designated by Anderson & Anderson 1971: 26.

Distribution: Asia (Burma).

References: (tx) Anderson, W. H. & Anderson 1971: 26; Eggers 1925: 153, 158, 1936c: 37.

scrutator (Pandelle) 1883: 136 (*Thamnurgus*). Holotype, sex?; Hautes-Pyrenees, Sos, Ande; not given.

Figures: Balachowsky 1949a: 168, 174 (adult), Grune 1979: 94, Teocchi 1971: 74.

Distribution: Europe (Belgium/ France/ Spain).

Hosts: *Corylus* sp., *Malus* sp., *Ostrya* sp., *Quercus* sp.

References: (bv) Grune 1979: 95. (cn) Grandi 1951.

(ee) Kleine 1908c: 216. (hb) Grandi 1951.

(ds) Arnoldi et al. 1955: 702; Grune 1979: 95; Hagedorn 1910d: 65; Heyden, Reitter, & Weise 1891: 673; Kleine 1913b: 135, 1934a: 154; Leclercq 1971; Reitter 1894a: 67; Sainte-Claire & Mequignon 1938: 446; Schaufuss 1915: 1240; Tredl 1907: 17. (tx) Balachowsky 1949a: 175; Eggers 1912b: 116–117; Eichhoff 1883a: 136; Grune 1979: 94–95; Hagedorn 1910a: 93; Hoffmann 1942: 73; Pandelle 1883: 136; Portevin 1935: 332; Postner 1974: 426; Reitter 1894a: 67, 1906a: 31, 1913a: 89; Schedl 1934f: 1642, 1961k: 738; Teocchi 1971: 74; Wichmann 1913c: 117–119.

Genus *Dolurgocleptes* Schedl

DOLURGOCLEPTES SCHEDL 1965c: 61. Type-species:

Dolurgocleptes malgassicus Schedl, monobasic.

References: (hb) Wood, S. L. 1986a: 73. (ds)

Wood, S. L. 1986a: 73. (tx) Schedl 1965c: 61; Wood, S. L. 1986a: 73.

malgassicus Schedl 1965c: 62. Holotype, sex?; Madagascar-Est, det. Sambava, Marojejy, Andassy II, 1550 m; IRSM, Madagascar.

Distribution: Madagascar.

References: (tx) Schedl 1965c: 61–62, 1972d: 147, 1979c: 147.

Genus *Triotemnus* Wollaston

TRIOTEMNUS WOLLASTON 1864: 264. Type-species:

Triotemnus subretusus Wollaston, monobasic.

Cladoctoporeus Schedl 1975e: 454. Type-species:

Cladoctoporeus scrofa Schedl, original designation. Synonymy: Wood 1984b: 229.

References: (tx) Schedl 1975e: 454; Wood, S. L. 1984b: 229.

References: (hb) Wood, S. L. 1986a: 73. (ds) Wood, S. L. 1986a: 73. (tx) Balachowsky 1949c: 101; Eggers 1912: 116; Eichhoff 1868d: 421, 1878b: 41, 102–103; Ferrari 1867: 4, 8; Hagedorn 1908: 371, 1909b: 138, 1910a: 71, 76, 1910d: 37; Hopkins 1914: 131, 135, 1915c: 226; Peyerimhoff 1949: 300; Schedl 1934f: 1638, 1958j: 240, 1961k: 648, 1964m: 306; Wollaston 1864: 264, 1865: 245; Wood, S. L. 1986a: 73.

aethiopicus Eggers 1936b: 31. Syntypes ♂ ♀; Abyssinia: Jem-Jem Forest, ca. 8000 feet; BMNH, London.

Distribution: Africa (Ethiopia).

Hosts: (?) *Euphorbia abyssinica*.

References: (ds) Schedl 1961k: 649. (tx) Eggers 1936b: 31; Schedl 1961k: 649, 1979c: 13.

antoinei Peyerimhoff 1949: 299. Syntypes 301, sex?; Morocco: Casablanca et Zenata; MNHN, Paris.

Distribution: Africa (Morocco).

References: (tx) Peyerimhoff 1949: 299, 301.

grangeri (Peyerimhoff) 1919: 253 (*Lymanator*). Syntypes 98, sex?; Doumia du Mazafra, North Africa; MNHN, Paris.

Figures: Balachowsky 1949c: 1–2, Peyerimhoff 1919: 253.

Distribution: Africa (Algeria).

Hosts: *Bupleurum fruticosum*, *B. spinosum*.

Notes: (1) Peyerimhoff 1949: 300 (to *Triotemnus*).

References: (hb) Peyerimhoff 1919: 253. (ds) Kleine 1934a: 156; Peyerimhoff 1919: 253; Schedl 1964a. (tx) Balachowsky 1949a; Peyerimhoff 1919: 253, 1949: 300–301; Schedl 1934f: 1642.

lepinyi Balachowsky 1949c: 98. Syntypes, sex?; Tizi-N'Test (Haut Atlas), Maroc, vers 2200 m; MNHN, Paris.

Figures: Balachowsky 1949c: 98, pl. I.

Distribution: Africa (Morocco).

Hosts: *Bupleurum spinosum*.

References: (ds) Schedl 1971n: 350. (tx) Balachowsky 1949c: 98.

longicollis Peyerimhoff 1925: 11. Syntypes, sex?; Morocco: Oued el-Akhdar pres Demnat; MNHN, Paris.

Figures: Peyerimhoff 1925: 11, Schedl 1961k: 648 (antenna).

Distribution: Africa (Morocco).

Hosts: *Euphorbia beaumeriana*, *E. euchinus*, *E. resinifera*.

References: (hb) Peyerimhoff 1926: 388. (ds) Kleine 1934a: 140; Peyerimhoff 1925: 11, 1926: 388; Schedl 1964a. (tx) Balachowsky 1949c: 102; Eggers 1936b: 31; Peyerimhoff 1925: 11, 1949: 300–302; Schedl 1934f: 1638, 1961k: 648.

pilicornis Wood 1992a: 87. Holotype ♂; Chikalda, Malghat, C.P., India; Wood Collection.

Distribution: Asia (Karnataka, Madhya Pradesh, Maharashtra in India).

Hosts: *Euphorbia* spp.

References: (tx) Wood, S. L. 1992a: 87.

scrofa (Schedl) 1975c: 454 (*Cladoctoporus*). Holotype ♂; Madras: Andippatti Hills, 9 km a l'est d'Andippatti; MHNG, Geneva.

Distribution: Asia (Karnataka, Maharashtra, Tamil Nadu, Uttar Pradesh in India/Sri Lanka).

Hosts: *Euphorbia antiquorum*, *E. spp.*, rare in *Opuntia* sp.

Notes: (1) Wood 1986a: 73 (to *Triotemnus*).

References: (tx) Schedl 1975c: 454, 1979c: 223; Wood, S. L. 1984b: 229, 1986a: 73.

striatus Eggers 1936c: 37. Holotype ♂; Natal: Malvern; BMNH, London.

Distribution: Africa (Natal in South Africa).

References: (tx) Eggers 1936c: 37–38; Schedl 1961k: 650.

subretusus Wollaston 1864: 265. Holotype, sex?; Comeran; BMNH, London.

Distribution: Africa (Canary Islands), Europe (Spain).

Hosts: *Euphorbia canariensis*.

References: (cn) Souphieff & Scherbinovskaja 1937: 28. (hb) Peyerimhoff 1926: 388. (ds) Gemminger & Harold 1872; Hagedorn 1910d: 37; Kleine 1913b: 116; Lacordaire 1866: 376; Peyerimhoff 1923a: 47, 1925: 11, 1926: 388; Schedl 1964a, 1971d: 425; Schedl, Lindberg, & Lindberg 1959: 17; Souphieff & Scherbinovskaja 1937: 28; Uyttenboogaart 1937: 117. (tx) Balachowsky 1949c: 102; Eggers 1936b: 31; Eichhoff 1875b: 105; Hagedorn 1910a: 76; Hopkins 1914: 131; Lacordaire 1866: 376; Peyerimhoff 1923a: 47, 1949: 302; Schedl 1934f: 1638; Schedl, Lindberg, & Lindberg 1959: 17; Wollaston 1864: 265, 1865: 245.

villiersi Schedl 1958j: 240. Lectotype ♀; Nigeria: Schedl Collection in NIIMW, Wien, designated by Schedl 1979c: 268.

Distribution: Africa (Nigeria).

Hosts: *Euphorbia* sp.

References: (ds) Schedl 1961k: 650. (tx) Schedl 1952j: 9, 1954e: 72, 1958j: 240–241, 1961k: 650, 1979c: 268.

Genus *Thamnurgus* Eichhoff

THAMNURCUS EICHHOFF 1864: 40. Type-species: *Bostrichus euphorbiae* Kuster, subsequent designation by Hopkins 1914: 130.

Keys: Balachowsky 1949: 165, Reitter 1913: 85.

References: (ay) Eichhoff 1864b: 40–46; Fuchs 1912: 9–43; Lacordaire 1866: 373; Lékander 1959: 92; Nobuchi 1969a: 59; Nusslin 1911, 1912; Roepke 1919: 23–24. (hb) Bargmann 1906: 312; Luigioni 1929: 999; Nusslin 1906: 47–64; Wichmann 1927: 352; Wood, S. L. 1986a: 73. (ds) Chobaut 1897: 262; Formanek 1907: 31–32; Hagedorn 1910d: 64–65; Scheerpeltz & Winkler 1930: 255; Schimitschek 1937: 54; Wood, S. L. 1986a: 73. (tx) Balachowsky 1949a: 164, 1949c: 101–103; Beeson 1939: 279–308; Bertolini 1872: 201; Blandford 1893c: 11, 1894b: 261, 1896c: 143; Eggers 1933: 63; Eichhoff 1864b: 40, 1878b: 210–211, 1881a: 206; Escherich 1923: 471; Ferrari 1867a: 5, 35–36, 1867b: 114; Fuchs 1912; Hopkins 1909b: 138, 1910a: 88–93, 1914: 130, 133, 1915a: 9, 1915c: 195, 226; Karaman 1972: 103; Lepesme 1942: 268–271; Murayama 1957: 589–590, 1961: 29; Numberg 1945: 46–47; Nusslin 1898: 281, 1912a: 268–269, 1912b: 101–107; Peyerimhoff 1925: 12, 1949: 300; Pfeffer 1962: 244, 1989a: 55; Redtenbacher 1874: 379–380; Reitter 1894: 66–67, 1906: 711, 1913a: 84–85, 1916: 296; Schedl 1938c: 456–457, 1952i: 9, 1957d: 14, 1958d: 187–188, 1961k:

- 663, 1962n: 697–699, 1963a: 29–32, 1969h: 95–98, 1977b: 101; Schilsky 1888: 122; Scott 1935: 281–282; Seidlitz 1891: 612; Stark 1952: 308–310; Wachtl 1876: 460; Westhoff 1882: 239; Wood, S. L. 1986a: 73.
- africanus** **Eggers** 1924: 108. Lectotype, sex?; Manyema (Sibatwa Kilengve), Congogebiet; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 15.
Distribution: Africa (Kenya/ Uganda/ Zaire).
Hosts: *Lobelia bambuseti*, *L. gibberroa*, *L. sp.*, *Veronica auriculifera*.
References: (ce) Schedl 1961k: 665. (hb) Schedl 1961k: 665. (ds) Mayne & Donis 1962: 314; Schedl 1961k: 665, 1963a: 30, 1971e: 4. (tx) Eggers 1924: 108, 1933c: 23, 1943c: 63; Nunberg 1961b: 615; Schedl 1961k: 665, 1979c: 15.
- armeniacus** **Reitter** 1897c: 244. Syntypes 2, ♂ ♀; Kankasus: Araxesthal bei Ordubad; NHMB, Budapest.
Distribution: Europe (W USSR).
References: (hb) Stark 1952: 311. (ds) Hagedorn 1910d: 64; Heyden, Reitter, & Weise 1906: 711; Kleine 1913b: 134; Stark 1952: 311. (tx) Hagedorn 1910a: 93; Pfeffer 1955a: 159; Reitter 1897c: 244, 1901b: 172, 1913a: 86; Schedl 1934f: 1641; Stark 1952: 311.
- brylinskyi** **Reitter** 1889c: 40. Holotype, sex?; Araxesthal; NHMB, Budapest.
Figures: Balachowsky 1949a: 168, 174.
Distribution: Asia (Turkey), Europe (France/ W USSR).
Hosts: *Peganum parmala*, *Tamarix octandra*.
References: (hb) Lengerken 1939: 65, 1954: 85; Stark 1952: 313. (ds) Arnoldi et al. 1955: 702; Balachowsky 1943a; Hagedorn 1910d: 64; Heyden, Reitter, & Weise 1891: 673, 1906: 711; Kadyrov 1989; Kleine 1913b: 134, 1914b: 245, 1934a: 154; Reitter 1894a: 67; Schaufuss 1915: 1240; Stark 1952: 313. (tx) Balachowsky 1943a; 1949a: 169–170; Hagedorn 1910a: 93; Hoffmann 1942: 73; Iablokoff-Khnzorian 1961: 30; Pfeffer 1955a: 158; Reitter 1889c: 40, 1894a: 67, 1913a: 88; Schedl 1934f: 1641; Stark 1952: 313; Strohmeier 1907d: 6.
- capensis** **Schedl** 1977c: 396. Holotype, sex?; Sudafrica: Cape Town, Milnerton; Schedl Collection in NHMW, Wien.
Distribution: Africa (South Africa).
References: (tx) Schedl 1977c: 396.
- caucasicus** **Reitter** 1887b: 195. Syntypes 2, sex?; Kankasus: Kutais und Utsch-Dere; NHMB, Budapest.
Distribution: Europe (W USSR).
References: (hb) Stark 1952: 310. (ds) Hagedorn 1910d: 64; Heyden, Reitter, & Weise 1891: 673, 1906: 711; Kleine 1913b: 134, 1934a: 154; Langhoffer 1915c: 158; Reitter 1894a: 66; Stark 1952: 310. (tx) Endrodi 1957: 308; Fawel 1887; Hagedorn 1910a: 93; Reitter 1887b: 195, 1894a: 66, 1913a: 86; Schedl 1934f: 1641; Stark 1952: 310.
- characiae** **Rosenhauer** 1878: 162. Syntypes, sex?; Barcelona, Spain; not located.
Figures: Balachowsky 1949a: 168, 170, 174.
Distribution: Africa (Algeria), Europe (France/ Greece/ Italy/ Spain).
Hosts: *Euphorbia characias*.
References: (cn) Grandi 1951. (ce) Kleine 1908c: 216; (hb) Dombrowsky 1887; Eichhoff 1881a: 48; Grandi 1951. (ds) Barthe 1896; Correa de Barros 1907; Escalera 1919; Hagedorn 1910d: 64; Heyden, Reitter, & Weise 1883: 172, 1891: 673, 1906: 711; Kleine 1913b: 134, 1934a: 154; Krausse 1911: 67; Lokaj 1908: 11; Pfeffer 1947d: 127; Pittioni 1943: 176; Ragusa 1924: 116; Reitter 1894a: 66; Sainte-Claire & Mequignon 1938: 446; Schedl 1964a, 1971d: 429; Tredd 1907: 17. (tx) Balachowsky 1949a: 171; Dombrowsky 1887; Eggers 1912b: 114, 1912f: 29; Eichhoff 1878b: 513, 1881a: 48, 208, 1883a: 111, 136; Hagedorn 1910a: 93; Peyerimhoff 1949: 303; Pfeffer 1955a: 159; Portevin 1935: 331; Reitter 1889c: 40, 1894a: 66, 1897c: 244, 1901b: 182, 1913a: 86; Rosenhauer 1878: 162; Schaufuss 1915: 1240; Schedl 1934f: 1641; Strohmeier 1907d: 6.
- concaivfrons** (**Schedl**) 1950c: 207 (*Xylocleptes*).
Holotype ♀; O. Afrika, Usambara; Schedl Collection in NHMW, Wien.
Distribution: Africa (Tanzania).
Notes: (1) Schedl 1952i: 9 (to *Thamnurgus*).
References: (tx) Schedl 1950c: 207, 1952i: 9, 1961k: 679, 1979c: 60.
- csikii** **Endrodi** 1957b: 307. Holotype, sex?; Budapest Umgebung; NHMB, Budapest.
Distribution: Europe (Hungary).
References: (ds) Endrodi 1957b: 307. (tx) Endrodi 1957b: 307.
- cylindricus** (**Eggers**) 1927a: 181 (*Xylocleptes*).
Holotype ♀?; Ruanda: Karissimbi-Vulkan; MRCB, Tervuren.
Distribution: Africa (Ruanda/ Zaire).
Notes: (1) Schedl 1952i: 9 (to *Thamnurgus*).
References: (tx) Eggers 1927a: 181; Schedl 1952i: 9, 1961k: 680.
- delphini** (**Rosenhauer**) 1856: 302 (*Bostrichus*).
Syntypes, sex?; Malaga; not located.
Figures: Balachowsky 1949a: 170, 174.
Distribution: Africa (Algeria/ Morocco/ Tunisia), Europe (France/ Greece/ Italy/ Sicily/ Spain).
Hosts: *Delphinium consolida*, *D. sp.*, *Teucrium pseudoscorodonia*.
References: (cn) Grandi 1951. (ce) Kleine 1908c: 216. (hb) Dombrowsky 1887; Eichhoff 1881a: 48, 208; Grandi 1951; Lengerken 1941: 156; Peyerimhoff 1915: 60; Stark 1952: 312; Wachtl 1876a: 460. (ds) Bedel 1888a; Calwer 1884, 1893; Escalera 1919; Gemminger & Harold 1872: 2689; Hagedorn 1910d: 64; Heyden, Reitter, & Weise

1883: 182, 1891: 673, 1906: 711; Kleine 1913b: 134, 1914a: 16, 1934a: 154; Lacordaire 1866: 383; Lengerken 1941: 156; Lokaj 1908: 11; Lucht 1987: 277; Nunberg 1964a: 235; Pfeffer 1947d: 128; Pittioni 1943: 176; Ragusa 1924: 116; Reitter 1894a: 67; Rosenhauer 1856: 302; Schaum 1859: 96, 1862: 101; Schedl 1964a, 1967c: 71, 1971d: 426, 1981b: 70; Scott 1935: 281; Stark 1927: 89, 1952: 312; Stein 1868: 114; Stein & Weise 1877: 164; Tredl 1907: 17; Wachtl 1876a: 460. (**tx**) Balachowsky 1949a: 171; Dombrowsky 1887; Eggers 1908a: 122, 1910c: 37–38, 1914: 109–110; Eichhoff 1864b: 46, 1866: 278, 1868d: 419, 1878b: 213, 1881a: 48, 208, 1883a: 111, 136; Ferrari 1867a: 36–37, 1867b: 114; Hagedorn 1910a: 93; Lacordaire 1866: 383; Lucht 1987: 277; Peyerimhoff 1915: 60, 1949: 303; Pfeffer 1955a: 155; Reitter 1887b: 195, 1889c: 40, 1894a: 67, 1901b: 182, 1913a: 88; Rosenhauer 1856: 302, 1878: 162; Schedl 1934f: 1641, 1962p: 205, 1981b: 70; Scott 1935: 281; Sokanovskii 1954: 18; Stark 1952: 312; Strohmeier 1907d: 6. (**ms**) Eichhoff 1868d: 419.

holtzi Strohmeier 1907d: 6. Holotype ♀; Graecia; Strohmeier Collection. Synonymy: Reitter 1913a: 88.

References: (**ec**) Kleine 1908c: 216. (**ds**) Hagedorn 1910d: 64; Kleine 1913b: 134; Schaufuss 1915: 1240; Tredl 1907: 17. (**tx**) Eggers 1908d, 1914: 109–110; Hagedorn 1910d: 93; Reitter 1913a: 88; Schedl 1934f: 1641; Strohmeier 1907d: 6.

elegans Schedl 1957d: 64. Holotype ♀; Congo Belge; Kibali-Ituri, Irumu, galerie forestiere; MRCB, Tervuren.

Figures: Schedl 1961k: 663.

Distribution: Africa (Angola/ Tanzania/ Zaire).

Hosts: *Clematis simensis*.

References: (**cc**) Schedl 1961k: 668. (**hb**) Schedl 1961k: 668. (**ds**) Ferreira 1965: 116; Mayne & Donis 1962: 314; Schedl 1959p: 17, 1961k: 668, 1972k: 295. (**tx**) Schedl 1957d: 64, 1961k: 663, 668, 1979c: 88.

elongatus Schedl 1969d: 14. Holotype, sex?; Grande Comore; Boboni; MNHN, Paris.

Distribution: Africa (Comore Island).

References: (**ds**) Schedl 1969d: 9. (**tx**) Schedl 1969d: 14, 1977b: 102.

euphorbiae (Kuster) 1845: 39 (*Bostrichus*). Syn-types, sex?; Europe; not located.

Distribution: Africa (Algeria), Europe (France/ Germany/ Greece/ Italy/ Spain/ Yugoslavia).

Hosts: *Euphorbia dendroides*, *E. gerardiana*.

References: (**cn**) Wachtl 1901: 381. (**cc**) Kleine 1908c: 216, 1944: 79; Novak 1952: 416. (**hb**) Bach 1864; Dombrowsky 1887; Eichhoff 1881a: 48, 207; Knotek 1894a: 558; Lengerken 1941: 156, 1954: 85; Nusslin 1898: 274; Rupertsberger 1880: 230; Schroder 1896: 357; Stark 1952: 311; Wachtl 1876a: 460, 1901: 381. (**ds**) Acloque 1896; Blan-

chere & Robert 1889; Calver 1884, 1893; Dieck 1870; Gemminger & Harold 1872: 2689; Gozis 1875: 80; Hagedorn 1910d: 64; Heyden, Reitter, & Weise 1883: 152, 1891: 673, 1906: 711; Holdhaus 1912: 454; Kaltenbach 1874: 523; Kestercanek 1881a: 12; Kleine 1913a: 57, 307, 1913b: 134, 1914a: 16, 1934a: 154; Knotek 1894a: 558; Krausse 1910: 171, 1911: 67; Lacordaire 1866: 382; Langhoffer 1915c: 158; Lengerken 1941: 156; Lichtenstein & Picard 1919: 62–64; Lokaj 1908: 11; Lucht 1987: 277; Negru 1966b: 401; Novak, P. 1952: 416, 1964; Nusslin 1898: 274; Orten 1886: 250; Paganetti-Hummler 1901: 150; Perris 1876a: 256, 1877a: 416; Pittioni 1943: 176; Ragusa 1924: 116; Reitter 1894a: 66; Schaufuss 1915: 1240; Schaum 1859: 96, 1862: 101; Schedl 1967c: 68, 1971d: 429, 1981b: 70; Stark 1952: 311; Stein 1868: 114; Stein & Weise 1877: 164; Tredl 1907: 17; Wachtl 1876a: 460. (**tx**) Acloque 1896; Bach 1864; Balachowsky 1949a: 172; Bertolini 1872; Dombrowsky 1887; Eggers 1914: 109–110, 295; Eichhoff 1864b: 41, 1868d: 419, 1878b: 211, 1881a: 48, 207, 1883a: 111, 135; Fauvel 1889; Ferrari 1867a: 36, 1867b: 114; Hagedorn 1910a: 93; Hopkins 1914: 130; Jacquelin du Val & Fairmaire 1868: 107; Kuster 1845: 39; Lacordaire 1866: 382; Lucas 1920: 635; Lucht 1987: 277; Negru 1966b: 401; Perris 1877a: 416; Peyerimhoff 1949: 303; Pfeffer 1932b: 3, 1955a: 155; Reitter 1887b: 195, 1894a: 66, 1913a: 87; Rosenhauer 1878: 162; Rupertsberger 1880: 230; Schedl 1934f: 1641, 1981b: 70; Stark 1952: 311. (**ms**) Eichhoff 1868d: 419; Lucas 1920: 635.

euryopsis Schedl 1955i: 218. Lectotype, sex?; Cape Prov., Grey's Pass; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 92.

Distribution: Africa (South Africa).

Hosts: *Euryops athanasiae*.

References: (**ds**) Schedl 1961k: 670. (**tx**) Schedl 1955i: 212, 218, 1961k: 670, 1979c: 92.

granulicollis Schedl 1957d: 65. Holotype ♀; Congo Belge; Kivu, Mulungu; MRCB, Tervuren.

Distribution: Africa (Kenya/ Zaire).

Hosts: *Caesalpinia decapetala*, *Clematis simensis*, *Geniosporum paludosum*, *Kotschyia africana*, *Loranthus* sp., *Protea* sp., *Polygomon tomentosum*, *Sida rhombifolia*, *Strombosia scheffleri*, *Virecta multiflora*.

References: (**ds**) Mayne & Donis 1962: 314; Schedl 1961k: 670, 1965g: 20. (**tx**) Schedl 1957d: 65, 1961k: 670, 1965g: 20, 1979c: 111.

grossepunctatus Schedl 1977c: 397. Holotype, sex?; Sudwestafrika; Windhoek; Mus. Alexander Koenig, Bonn.

Distribution: Africa (Namibia).

References: (**tx**) Schedl 1977c: 397.

interpunctatus Schedl 1950h: 105. Lectotype, sex?; Tananarive, Tsimbazaza; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 127.

Distribution: Madagascar.

Hosts: *Luffa tiges*, Chouchoute.

References: (cn) Paulian 1950b: 61. (hb) Paulian 1950b: 61. (tx) Schedl 1950h: 105–106, 1977b: 103, 1979c: 127.

jemeniae Schedl 1975h: 353. Holotype, sex?; Jemen, Wadi Zabid; NHMB, Budapest.

Distribution: Asia (Yemen).

References: (tx) Schedl 1975h: 353.

jolivetii Nunberg 1973: 18. Holotype ♂; Massif Ruwenzori, Kalonge; MRCB, Tervuren.

Distribution: Africa (Zaire).

References: (tx) Nunberg 1973: 18.

kaltenbachi (Bach) 1850: 199 (*Bostrichus*). Syntypes, sex?; [Germany?]; not given.

Figures: Balachowsky 1949a: 165, 170, 174.

Distribution: Africa (Algeria), Europe (Austria/ Belgium/ Corsica/ Czechoslovakia/ France/ Germany/ Hungary/ Italy/ Poland/ Spain/ Switzerland/ W USSR).

Hosts: *Betonica officianalis*, *Laurium album*, *Origanum vulgare*, *Stachys sylvatica*, *Teucrium scorodonia*.

References: (ay) Inhoff 1856: 228; Nusslin 1911a: 60, 225, 338. (cn) Grandi 1951; Karpinski & Strawinski 1948: 156; Kholodkovskii 1912: 278; Muller 1912: 184; Nusslin 1913: 290; Wachtl 1901: 381; Wichmann 1927b: 352. (ec) Kleine 1908c: 216, 1909a: 49, 1944: 81; Nusslin 1927: 350; Sedlacek 1935a: 162; Tavares 1905: 104. (hb) Bach 1850, 1864; Buddenburg 1881: 394–402, 1883: 133–140; Eichhoff 1881a: 48, 209; Fuchs 1907: 38; Giraud 1867; Grandi 1951; Karpinski & Strawinski 1948: 156; Kholodkovskii 1912: 278; Lengerken 1939: 65, 1941: 156, 1954: 85; Nusslin 1898: 281, 1913: 290, 1927: 350; Rupertsberger 1880: 230; Schroder 1896: 357; Sedlacek 1935a: 162; Wachtl 1876a: 460, 1901: 381; Wichmann 1927b: 352. (ds) Acloque 1896; Andras & Schaefer 1957; Bach 1850; Bau 1888; Bedel 1888b; Brakman 1966b: 205; Calwer 1884, 1893; Chapuis & Candeze 1853; Dombrowsky 1887; Eggers 1904; Endrodi 1958b; Fricken 1889: 349; Fuchs 1907: 38; Gemminger & Harold 1872: 2689; Giraud 1867; Gozis 1875: 80; Gredler 1875: 115; Hagedorn 1910d: 64; Heyden 1876: 299, 1879: 140; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 711; Horion 1951; Kaltenbach 1874: 477, 481, 485, 489; Kestercanek 1881a: 12; Kleine 1912a: 268, 1913a: 35, 1913b: 134, 1934a: 154; Kraatz 1869: 59; Lacordaire 1866: 382; Langhoffer 1915c: 158; Leclercq 1971; Lengerken 1941: 156; Lokaj 1908: 11; Lucht 1987: 277; Negri 1966b: 401, 1968a: 455; Nunberg 1954: 47; Nusslin 1898: 281; Perris 1876a: 255, 1877a: 415–416; Pfeffer 1989a: 56; Pittioni 1943: 176; Redtenbacher 1858: 837, 1874: 379; Reitter 1894a: 67, 1916: 297; Sainte-Claire 1914: 471; Sainte-Claire & Mequignon 1938: 446; Schaufuss 1915: 1240; Schaum 1859:

96, 1862: 101; Schedl 1971d: 426, 1980a: 21, 1981b: 70; Schilsky 1909: 188; Schmaus 1960: 32; Schroeder 1887: 138; Scott 1935: 281; Seidlitz 1891a: 566, 1891b: 612; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 445; Szulczewski 1930: 268; Tredl 1907: 17; Wachtl 1876a: 460; Westhoff 1882: 239; Wichmann 1927a: 79. (tx) Acloque 1896; Bach 1849b, 1850: 199, 1854, 1864; Balachowsky 1949a: 169; Bedel 1888b; Chapuis & Candeze 1853; Dombrowsky 1887; Eichhoff 1864b: 41, 1878b: 215, 1881a: 48, 209, 1883a: 111, 136; Endrodi 1957b; Fauvel 1889; Ferrari 1867a: 36–37, 1867b: 114; Fleischer 1927; Formanek 1907: 32; Fricken 1889: 349; Hagedorn 1910a: 93; Jacquelin du Val & Fairmaire 1868: 107, 112; Karpinski & Strawinski 1948: 156; Kuhl 1913: 1054; Lacordaire 1866: 382; Lucht 1987: 277; Negri 1966b: 401; Nunberg 1954: 47; Nusslin 1911a: 255, 338, 60; Perris 1877a: 415–416; Peyerimhoff 1949: 303; Pfeffer 1932b: 22, 1955a: 158; Redtenbacher 1858: 837, 1874: 379; Reitter 1894a: 67, 1897c: 244, 1913a: 88, 1916: 297; Rosenhauer 1878: 162; Rupertsberger 1880: 230; Schedl 1934f: 1641, 1952f: 87, 1980a: 21, 1981b: 70; Scott 1935: 281; Seidlitz 1891a: 566, 1891b: 612; Stierlin 1898: 445. (ms) Koch 1977: 27.

declivis Reitter 1897c: 244. Syntypes 5, sex?; Teucrium; NHMB, Budapest. Synonymy: Reitter 1913a: 88.

References: (ds) Schilsky 1909: 188. (tx) Reitter 1897c: 244, 1913a: 88; Schedl 1934f: 1641.

lobeliae Eggers 1933e: 23. Holotype, sex?; Uganda: Ruwenzori Mt.; BMNH, London.

Distribution: Africa (Ethiopia/ Kenya/ South Africa/ Uganda).

Hosts: *Lobelia bequaertii*, *L. deckeni*, *L. stuhlmanii*, *L. telekii*, *L. wollastonii*.

References: (bv) Schedl 1960f: 39, 132. (hb) Lengerken 1939: 65, 1954: 85. (ds) Browne 1975b: 395; Kleine 1934a: 154, 631; Schedl 1960f: 39, 132, 1961k: 672, 1963a: 30, 1965g: 20; Scott 1935: 241, 282. (tx) Eggers 1933e: 23, 1943c: 63; Schedl 1957d: 14, 1961k: 671–672, 1965g: 20, 1979c: 140; Scott 1935: 241.

latus Lepesme 1942h: 268. Holotype, sex?; Mont Kenya, Kenya; MNHN, Paris. Synonymy: Schedl 1961k: 672.

References: (tx) Lepesme 1942h: 268; Schedl 1957d: 14, 1961k: 671–672.

longipilus Schedl 1938d: 456. Lectotype, sex?; Mt. Kilimandjaro; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 141.

Distribution: Africa (South Africa/ Tanzania).

References: (ds) Schedl 1938d: 456, 1965g: 20. (tx) Schedl 1938d: 456, 1961k: 672, 1965g: 20, 1979c: 141.

mairei Peyerimhoff 1949: 302. Syntypes, sex?; Atlantem Medium imperii maroccani Atlas marocain, 1600 m; not given.

Distribution: Africa (Algeria).

Hosts: *Euphorbia megalatlantica*.

References: (tx) Peyerimhoff 1949: 302–303.

mandibularis Schedl 1953d: 90. Lectotype ♀; Madagascar, Diego-Suarez; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 145. Distribution: Madagascar. References: (tx) Schedl 1953d: 90, 1977b: 103, 1979c: 145.

nitellus Schedl 1953d: 92. Lectotype ♀; Madagascar, Diego-Suarez; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 168. Distribution: Madagascar. References: (tx) Schedl 1953d: 91–92, 1977b: 103, 1979c: 168.

nitidulus Schedl 1953d: 91. Lectotype, sex?; Madagascar, Mt. d'Ambre, Foret Cote Est; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 169. Distribution: Madagascar. References: (tx) Schedl 1953d: 90–91, 1977b: 103, 1979c: 169.

nitidus Browne 1980e: 773. Holotype, sex?; Zaire: Yangambi; MRCB, Tervuren. Distribution: Africa (Zaire). References: (tx) Browne 1980e: 773.

orientalis Schedl 1978e: 38. Holotype, sex?; Israel: Ein Dor; Division of Entomology, Agriculture Research Organization, Ilanot, Israel. Distribution: Asia (Israel). Hosts: *Cotoneaster* sp.

References: (ec) Halperin & Holzschuh 1984: 28. (hb) Halperin & Holzschuh 1984: 28. (ds) Halperin & Holzschuh 1984: 28. (tx) Schedl 1978e: 38.

pegani Eggers 1933f: 6. Holotype, sex?; Turkmenien (Krasnowodsk); IZL, Leningrad. Distribution: Europe (W USSR). References: (hb) Stark 1952: 313. (ds) Kadyrov 1989; Kleine 1934a: 154; Stark 1952: 313. (tx) Eggers 1933f: 6; Peyerimhoff 1949: 303; Pfeffer 1955a: 158; Schedl 1979c: 187; Sokanovskii 1954: 18; Stark 1952: 313.

petzi Reitter 1901b: 182. Syntypes, sex?; Gross-Dirn in Ober-Osterreich; NHMB, Budapest. Figures: Balachowsky 1949a: 170, 174. Distribution: Europe (Austria/ Hungary). Hosts: *Aconitum stoerkianum*. References: (ec) Kleine 1908c: 216. (hb) Petz 1907: 102. (ds) Endrodi 1958b; Hagedorn 1910d: 64; Heyden, Reitter, & Weise 1906: 711; Horion 1935, 1951; Kleine 1913a: 35, 1913b: 134, 1934a: 154; Lokaj 1908: 11; Lucht 1987: 277; Pfeffer 1989a: 55; Pittioni 1943: 176; Reitter 1903: 31, 1916: 351; Schaufuss 1915: 1240; Schedl 1980a: 21, 1981b: 69; Schilsky 1909: 188; Scott 1935: 281; Tredl 1907: 17; Wichmann 1927a: 79. (tx) Balachowsky 1949a: 169; Eggers 1908a: 122, 1922c; Endrodi 1957b: 307; Formanek 1907: 32; Hage-

dorn 1910a: 93; Lucht 1987: 277; Pfeffer 1932b: 3, 1955a: 155; Reitter 1901b: 182, 1903: 31, 1913a: 86, 1916: 351; Schedl 1934f: 1641, 1980a: 21, 1981b: 69; Scott 1935: 281.

posticepunctatus Eggers 1937b: 334. Holotype ♂; Kankasus (Araxestal); NHMB, Budapest. Distribution: Europe (W USSR). References: (tx) Eggers 1937b: 334.

punctatissimus Eggers 1944b: 95. Holotype, sex?; Belgisch-Congo: Lubero; MRCB, Tervuren. Distribution: Africa (Ruanda/ Zaire). Hosts: *Lobelia* spp. References: (cn) Mayne & Donis 1951: 334. (ec) Mayne & Donis 1951: 334. (ds) Eggers 1944b: 95; Schedl 1961k: 673. (tx) Eggers 1944b: 95; Schedl 1950d: 7, 1952j: 2, 1955f: 258, 1961k: 673.

robustus Eggers 1908a: 122. Lectotype, sex?; Sicilia (Imera, Navurra); Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 213. Distribution: Europe (Sicily). References: (ds) Ragusa 1924: 116. (tx) Balachowsky 1949a: 171; Eggers 1908a: 122; Hagedorn 1910a: 93; Schedl 1934f: 1641, 1962p: 205, 1979c: 213; Sokanovskii 1954: 18.

sardus Eggers 1912b: 114. Lectotype, sex?; Sadali, Sardinia; USNM, Washington, designated by Anderson & Anderson 1971: 29. Distribution: Africa (Algeria), Europe (Sardinia). Hosts: *Euphorbia wolfenii*. References: (ds) Kleine 1913b: 134, 1934a: 154; Ragusa 1924: 116; Schedl 1964a; (tx) Anderson, W. H. & Anderson 1971: 29; Eggers 1912b: 114–115, 1912f: 28; Pfeffer 1955a: 159; Reitter 1913a: 87; Schedl 1934f: 1641, 1979c: 219.

semirufus Reitter 1906b: 36. Holotype, sex?; Anatolien: Adalia; NHMB, Budapest. Distribution: Asia (Turkey). References: (hb) Stark 1952: 311. (ds) Hagedorn 1910d: 65; Kleine 1913b: 134; Stark 1952: 311. (tx) Hagedorn 1910a: 93; Pfeffer 1955a; Reitter 1906b: 36, 1913a: 85; Schedl 1934f: 1641; Stark 1952: 311.

senecionis Schedl 1938d: 456. Lectotype ♀; Kenya Colony, Aberdare Mts.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 224. Figures: Nunberg 1961b: 627–628, Schedl 1961k: 674. Distribution: Africa (Kenya/ South Africa/ Uganda). Hosts: *Lobelia gibberon*, *Senecio aberdareicus*, *S. brassicaeformis*, *S. elgonensis*, *S.* spp. References: (ds) Schedl 1938d: 456, 1961k: 674, 1963a: 30, 1965g: 20. (tx) Eggers 1943c: 64–65; Lepesme 1942: 270; Schedl 1938d: 456, 1952k: 160, 1957d: 15, 1961k: 674, 1962h: 65, 1962k: 1075, 1962n: 698, 1979c: 224. *jeanneli* Lepesme 1942b: 268. Holotype, sex?;

Mont Kenya; MNHN, Paris. Synonymy: Schedl 1961k: 674.

References: (tx) Lepesme 1942b: 268–269; Schedl 1952k: 160, 1961k: 674.

kinangopensis Lepesme 1942b: 270. Holotype, sex?; Monts Aberdare; Mont Kinangop; MNHN, Paris. Synonymy: Schedl 1961k: 674. References: (tx) Lepesme 1942b: 270; Schedl 1957d: 15, 1961k: 674.

ugandensis Nunberg 1961: 614. Holotype ♂; Uganda (Elgon), 10–11,000 ft.; BMNH, London. Synonymy: Schedl 1961k: 674.

References: (tx) Nunberg 1961b: 614, 627–628; Schedl 1961k: 674, 1962h: 65.

siculus Eggers 1912b: 115. Lectotype, sex?; Sicilia, insula; USNM, Washington, designated by Anderson & Anderson 1971: 30.

Distribution: Europe (Sicily).

References: (ds) Kleine 1913b: 134; Ragusa 1922: 129. (tx) Anderson, W. H. & Anderson 1971: 30; Eggers 1912b: 115, 1914: 298; Hagedorn 1910a: 109; Reitter 1913a: 87; Schedl 1934f: 1641, 1979c: 228.

varipes Eichhoff 1878b: 212. Holotype, sex?; Europa (Gallia meridionalis); Hamburg Museum, lost.

Figures: Balachowsky 1949a: 170.

Distribution: Asia (Turkey), Europe (Austria/ Bulgaria/ Czechoslovakia/ France/ Greece/ Hungary/ Poland/ Romania/ Yugoslavia).

Hosts: *Euphorbia amygdaloides*, *E. chariacas*, *E. gerardiana*.

References: (ay) Nunberg 1928a: 140. (cn) Grandi 1951; Marcu 1926c: 65; Schimitschek 1937c: 53, 1955c: 86; Wachtl 1901: 381. (ce) Kleine 1908c: 216; Nosek 1959b: 87; Pfeffer 1928b: 7; Pfeffer & Prihoda 1950: 1; Sedlaczek 1935a: 163. (hb) Dombrowsky 1887; Eichhoff 1881a: 48, 207; Grandi 1951; Karpinski & Strawinski 1948: 146; Knotek 1894a: 558; Lengerken 1939: 65, 1954: 85; Marcu 1941: 403; Nosek 1959b: 87; Pfeffer 1942a: 18; Sedlaczek 1935a: 162; Stark 1952: 310; Wachtl 1901: 381; Xamben 1895: 80. (ds) Acloque 1896; Andras & Schaefer 1957; Barthe 1896; Bedel 1888b; Brakman 1966b: 205; Csiki 1914; Endrodi 1958b; Fauvel 1885; Hagedorn 1910d: 65; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 711; Horion 1935, 1951; Karpinski & Strawinski 1948: 156; Kleine 1913a: 35, 1913b: 134, 1934a: 154; Knotek 1892a: 37, 1894a: 558; Lokaj 1908: 11; Lonnicki 1913b: 148; Lucht 1987: 277; Marcu 1926c: 65; Negru 1968a: 455; Nunberg 1928b: 88, 110, 1954: 47, 1960b: 156; Orest 1926c: 65; Pfeffer 1924b: 471, 1928b: 7, 1930b: 119, 1931b: 75, 1935: 658, 1936: 90, 1989a: 55; Pittioni 1943: 175; Reitter 1890a: 13, 1894a: 66, 1916: 296, 351; Roubal 1941: 266; Sainte-Claire & Mequignon 1938: 446; Schaufuss 1915: 1240; Schedl 1980a: 21, 1981b: 70; Schaeerpeltz & Winkler 1930: 258;

Schilsky 1909: 188; Scott 1935: 281; Stark 1927b: 89, 1952: 310; Stein & Weise 1877: 164; Tredl 1907: 17; Wichmann 1927a: 70–71. (tx) Acloque 1896; Balachowsky 1949a: 172; Bedel 1888b; Dombrowsky 1887; Eichhoff 1878a: 390, 1878b: 212, 1881a: 48, 207, 1883a: 111, 136; Endrodi 1957a: 305, 1957b; Fauvel 1885, 1887, 1889; Fleischer 1927; Formanek 1907: 32; Hagedorn 1910a: 93; Karpinski & Strawinski 1948: 156; Knotek 1892a: 37; Lucht 1987: 277; Nunberg 1928a: 140, 1954: 47; Pfeffer 1932b: 3, 21, 1942a: 18, 1955a: 159; Portevin 1935: 331; Reitter 1887b: 195, 1894a: 66, 1901b: 182, 1913a: 85, 1916: 296, 351; Rey 1892b: 30; Rosenhauer 1878: 162; Schedl 1934f: 1641, 1962p: 206, 1980a: 21, 1981b: 70; Schimitschek 1937c: 53–54, 1955c: 86; Scott 1935: 281; Stark 1952: 310.

wittei Eggers 1943c: 64. Syntypes, sex?; Congostaat (Park Natl. Albert: volcan Cahinga); sommet Visoke; Muhavura; Cahinga-Sabinvo; Kabara; de Witte and Eggers Collections, Eggers syntypes in NHMW, Wien.

Distribution: Africa (Kenya/ Ruanda/ Zaire).

Hosts: *Senecio* spp.

References: (ds) Schedl 1961k: 675. (tx) Eggers 1943c: 64; Schedl 1955f: 258, 1957d: 14, 1961k: 675.

kenyae Lepesme 1942b: 269. Holotype, sex?; Kenya: Mont Kenya; MNHN, Paris. Synonymy: Schedl 1961k: 676.

References: (tx) Lepesme 1942b: 268–269; Schedl 1952k: 160, 1957d: 14, 1960b: 164, 1961k: 675–676.

zukulalae Scott 1935: 282. Syntypes, sex?; Abyssinia: Mt. Zukwala; BMNH, London.

Distribution: Africa (Ethiopia).

Hosts: *Lobelia gibberroa*.

References: (ds) Schedl 1961k: 676; Scott 1935: 241. (tx) Eggers 1936b: 32, 1943c: 63; Schedl 1961k: 676; Scott 1935: 241, 282–283.

Genus *Taphronurgus* Reitter

TAPHRONURGUS REITTER 1913a: 84, 90. Type-species:

Thammurgus exul Reitter, monobasic.

References: (hb) Wood, S. L. 1986a: 73. (ds) Wood, S. L. 1986a: 73. (tx) Peyerimhoff 1949: 3; Pfeffer 1991: 211–214; Reitter 1913a: 84, 90; Schedl 1962r: 94; Wood, S. L. 1986a: 73.

exul (Reitter) 1891b: 199 (*Thammurgus*). Holotype, sex?; Syr-Darja-Gebiete (Ost-Turkmenien); NHMB, Budapest.

Distribution: Europe (Afghanistan/ Kazakhstan in W USSR).

Hosts: *Clematis orientalis*.

References: (hb) Stark 1952: 314. (ds) Hagedorn 1910d: 62; Heyden 1881: 177, 1893: 178, 1898: 77; Kadyrov 1989; Kleine 1913b: 132, 1914b: 246; Reitter 1894a: 87; Schaufuss 1915: 1240; Sinadsky 1958: 143; Stark 1952: 314. (tx) Hagedorn 1910a:

107; Heyden 1893: 178; Pfeffer 1991: 211–214; Reitter 1891b: 199, 1894a: 87, 1913a: 90; Schedl 1934f: 1642; Semenov 1903: 80; Sokanovskii 1954: 18, 1958: 39; Stark 1952: 314.

Genus *Xylocleptes* Ferrari

XYLOCLEPTES FERRARI 1867a: 37. Type-species: *Bostrichus bispinus* Duftschmidt, monobasic.

Xestips Hagedorn 1912: 353. Type-species: *Xestips marginatus* Hagedorn, monobasic. Synonymy: Schedl 1950c: 204.

References: (tx) Hagedorn 1912: 353; Schedl 1950c: 204, 1952i: 9, 1961k: 677, 1962r: 94.

Hylonius Nunberg 1973: 16. Type-species: *Hylonius brunneus* Nunberg, original designation. Synonymy: Wood 1986c: 267.

References: (tx) Nunberg 1973: 16; Wood, S. L. 1986a: 74, 1986c: 267.

Keys: Reitter 1913a: 91 for Europe.

Notes: (3) American species cited in this genus actually belong to *Dendrocranus*.

References: (ay) Fuchs 1912: 14–33; Nunberg 1928: 137–173. (hb) Felt 1906: 460; Judeich & Nitsche 1895: 449, 451; Wood, S. L. 1986a: 74. (ds) Hagedorn 1910d: 62; Scheerpeltz & Winkler 1930: 258; Wichmann 1964: 67; Wood, S. L. 1986a: 74. (tx) Balachowsky 1949a: 187–190, 1949b: 101; Barby 1901: 80; Bedel 1888b: 399, 415; Blandford 1898b: 84, 185, 188; Chamberlin 1939: 459–461; Eichhoff 1868d: 419, 1878b: 35, 51, 216, 1881a: 210; Ferrari 1867a: 37; Hagedorn 1910a: 89, 95, 106; Hopkins 1914: 131, 1915b: 9, 42–43, 1915c: 176, 188, 195, 226; Karaman 1972: 107; Knaus 1909: 72–73; LeConte & Horn 1883: 518; Lovendal 1889: 19–20; Nunberg 1960a: 287–308; Nusslin 1911, 1912; Peyerimhoff 1949: 301; Pfeffer 1989a: 59; Reitter 1894a: 68, 86–87, 1894c: 45, 1913a: 85, 91; Schedl 1935a: 160, 1940a: 348, 1950c: 204, 1952d: 9, 1957e: 879, 1958d: 184, 1961k: 677, 681, 1962r: 94; Schimitschek 1937: 50–51, 54; Spessivtsev 1931: 88; Swaine 1909: 158–159, 1918a: 50, 129; Wood, S. L. 1961a: 41–48, 1986a: 74.

abruptus Nunberg 1973: 20. Holotype ♀?; Massif Ruwenzori, Kyandolire; MRCB, Tervuren. Distribution: Africa (Zaire).

References: (tx) Nunberg 1973: 20.

abyssinicus (Schedl) 1965e: 364 (*Hoplitontus*). Holotype, sex?; Abyssinien; Schedl Collection in NHMW, Wien.

Distribution: Africa (Ethiopia).

Notes: (3) Holotype covered by glue, generic placement uncertain.

References: (tx) Schedl 1965e: 364, 1979c: 9.

adeniae (Schedl) 1952d: 11 (*Dryocoetes*). Holotype ♀; Congo Belge; Mlungu; MRCB, Tervuren. Distribution: Africa (Zaire).

Hosts: *Adenia cisampeloides*, *Embelia schimperii*.

Notes: (1) Wood examined some paratypes in

1983 and assigned this species to *Xylocleptes* (Wood 1983 notes p. 16).

References: (ds) Mayne & Donis 1962: 305; Murayama 1957c: 608; Schedl 1961k: 657. (tx) Murayama 1957c: 608; Schedl 1952d: 11, 1961k: 657, 1979c: 11–12.

ater Schedl 1962k: 1075. Holotype, sex?; D.O.A.: Usambara; Schedl Collection in NHMW, Wien.

Distribution: Africa (Tanzania).

References: (tx) Schedl 1962k: 1075, 1979c: 30.

baikiae Schedl 1957e: 879. Holotype ♀; Tanganyika, Minziro; BMNH, London.

Distribution: Africa (Tanzania).

Hosts: *Baikiaea eminii*.

References: (ds) Schedl 1961k: 679. (tx) Browne 1963b: 243; Schedl 1957e: 879–880, 1961k: 679, 1979c: 32.

bicuspis Reitter 1887b: 196. Syntypes ♀; Syrien; NHMW, Wien.

Distribution: Asia (Syria).

References: (ds) Hagedorn 1910d: 62; Hariri 1971: 262; Kleine 1913b: 132; Reitter 1894a: 87; Wichmann 1964: 1–67. (tx) Hagedorn 1910a: 107; Reitter 1887b: 196, 1894a: 87, 1894c: 45, 1913a: 91; Schedl 1934f: 1642.

bispinus (Duftschmidt) 1825: 92 (*Bostrichus*). Syntypes, sex?; Linz, Austria; not given.

Figures: Balachowsky 1949a: 184, 190, 192, Grune 1979: 92, Pfeffer 1989a: pl. 12; Postner 1974: 426 (adult).

Distribution: Africa (Algeria/ Egypt/ Libya/ Morocco/ Tunisia), Asia (Turkey/ E USSR), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ France/ Germany/ Greece/ Hungary/ Italy/ Netherlands/ Poland/ Romania/ Sardinia/ Spain/ W USSR/ Yugoslavia).

Hosts: *Clematis vitalba*, *Vitis sylvestris*.

References: (ay) Escherich 1923b: 487; Feytaud 1950a; Nunberg 1928a: 141; Nusslin 1911a: 60, 255, 338, 378. (bv) Grune 1979: 93; Klimetzek et al. 1989; Wichmann 1967. (cn) Chorbadzhevo 1929; Escherich 1923b: 487; Feytaud 1950a; Grandi 1951; Marcu 1926c: 65; Muller 1912: 186; Nusslin 1913: 290; Schimitschek 1937c: 54, 1955c: 86; Wachtl 1901: 381; Wichmann 1927b: 361. (ec) Elliot & Morley 1907; Gillanders 1906; Graham 1969: 874; Kielczewski 1976; Kleine 1908c: 215, 1909a: 49, 78; Nosek 1959a: 118, 1959b: 87; Novak 1952: 416; Nusslin 1927: 350; Perris 1853: 620, 1856a: 243; Pfeffer 1928b: 7; Rondani 1873: 139; Ruhn 1956b: 4; Sedlaczek 1935a: 157; Speyer 1937: 40; Wichmann 1967. (hb) Bach 1849a: 200, 1849c: 161, 1854: 129, 1864: 51; Barbey 1901: 24, 80; Buddenberg 1885: 98; Bukowsky 1930; Chorbadzhevo 1929; Dombrowsky 1887; Eichhoff 1881a: 48, 210; Escherich 1923b: 487; Everts 1903: 765; Feytaud 1950a; Fuchs 1904a, 1907: 47; Gillanders 1906, 1908; Grandi 1951; Hagedorn

1903a; Karpinski & Strawinski 1948: 156; Karsch 1853: 141; Knotek 1894a: 558; Lengerken 1939: 65, 1954: 85; Masutti 1964; Munro 1926: 67; Nordlinger 1856: 20; Nosek 1959a: 118, 1959b: 87; Nusslin 1898: 281, 1906b: 14, 1913: 290, 1927: 350; Perris 1856a: 243; Pfeffer 1942a: 18; Postner 1974: 425; Ratzeburg 1837: 155, 1839: 189; Rupertsberger 1880: 230; Schedl 1981b: 68; Sedlacek 1935a: 157; Speyer 1937: 40; Stark 1952: 318; Tschorbadzhiev 1929: 169; Wachtl 1876a: 460, 1901: 381; Wahnschaffe 1864: 396; Wichmann 1924: 15, 1927b: 361; Zocchi 1959: 103. (**ds**) Acloque 1896; Ammann & Knabl 1913; Bach 1849a, 1849c; Barthe 1896; Bau 1888; Bedel 1888b: 399, 415; Bejer-Petersen & Jorum 1977; Bielz 1887; Blanchere & Robert 1889; Borchert 1951; Brakman 1966b: 205; Brancsik 1871, 1906; Bukowsky 1930; Calwer 1884, 1893; Carpentier & Delaby 1908; Cecconi 1897; Chapuis & Candeze 1853; Chorbadzhevo 1924d, 1929; Crotch 1863; Debatisse 1945; Dejean 1821, 1825, 1837; Duftschmidt 1825: 92; Eggers 1904, 1912f; Endrodi 1958a, 1958b; Escherich 1923b: 554, 1932b; Everts 1922: 646; Favre 1890; Forster 1849: 439; Fowler 1882: 64, 1891; Fricken 1889: 348; Fuchs 1904a, 1905a, 1907: 47; Gemminger & Harold 1872: 2693; Gozis 1875: 80; Gredler 1866: 374, 1868; Grill 1895: 311; Grune 1979: 93; Guyon 1855; Hagedorn 1903a, 1910d: 162; Hansen 1939; Heinemann 1908a; Hellen 1947; Heyden 1876: 300, 1879: 140; Heyden, Reitter, & Weise 1883: 182, 1906: 712; Holdhaus 1912: 454, 1923: 115; Horion 1951; Kaltenbach 1874: 1; Karpinski & Strawinski 1948: 156; Kestercanek 1881a: 12; Kiefer et al. 1942: 529; Klefbeck & Sjöberg 1960: 230; Kleine 1912a: 262, 268, 1913a: 35, 307, 1913b: 132; Kloft & Hinks 1945: 218; Knotek 1892a: 37, 1894a: 558; Koca 1900: 116, 1905: 192; Koch 1977: 36; Koltze 1901: 153; Kozikowsky & Kuntze 1925: 21; Kraatz 1869: 59; Lacordaire 1866: 385; Langhoffer 1915c: 158; Leclercq 1971; Leder 1871: 131; Leng 1918: 211; Lentz 1857: 139; Lomnicki 1913b: 148; Lucht 1987: 277; Marcu 1926c: 65; Matthews & Fowler 1883; Meinert 1887: 70; Munro 1921: 88, 1926: 1-27; Negrn 1957: 129, 1966b: 401, 1968a: 455, 1968c: 91; Negrn & Rosca 1967: 141; Novak, P. 1952: 416; Nunberg 1928b: 88, 111, 1954: 66, 1960b: 157; Nusslin 1898: 281; Orest 1926c: 65; Paganetti-Hummeler 1901: 150; Perris 1876a: 254, 1877a: 414; Pfeffer 1924b: 471, 1928b: 7, 1930b: 120, 1931b: 73, 1936: 90, 1947d: 129, 1989a: 60; Pittioni 1943: 175; Postner 1974: 425; Prossen 1913: 84; Ragusa 1924: 117; Rapp 1934: 733; Ratzeburg 1837: 155, 1839: 189; Redtenbacher 1858: 834, 1874: 378; Reitter 1888b: 280, 1894a: 87, 1916: 297; Revy & Siroki 1942: 82; Rouhal 1941: 267; Sainte-Claire 1905: 157, 1914: 474; Sainte-Claire & Mequignon 1938: 447; Schaufuss 1915: 1241; Schaum 1859: 96, 1862: 101; Schedl

1961b: 186, 1971d: 426, 1980a: 21, 1981b: 68; Scheerpeltz & Winkler 1930: 258; Schilsky 1909: 189; Seidlitz 1872: 395, 1891a: 565, 1891b: 610; Sharp & Fowler 1893: 34; Stark 1927b: 89, 1952: 318; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 442; Stierlin & Gautard 1906: 205; Sturm 1843: 230; Swaine 1909: 159; Trappen 1935: 142; Tredl 1907: 16; Tschorbadzhiev 1929: 169; Villa & Villa 1833: 26; Wachtl 1876a: 460; Welch, R. C. 1968b: 19; Westhoff 1882: 239; Wichmann 1924: 15, 1927a: 72, 1964: 2; Zocchi 1959: 103. (**tx**) Acloque 1896; Bach 1854, 1864; Balachowsky 1949a: 191; Barbey 1901: 24, 80; Bedel 1888b: 399, 415; Bertolini 1872; Brancsik 1871; Carpentier & Delaby 1908; Chapuis & Candeze 1853; Chevrolat 1838; Chorbadzhevo 1924d; Dejean 1821, 1825; Doeber 1862: 178; Dombrowsky 1887; Duftschmidt 1825: 92; Duffy 1953: 15; Eggers 1912f: 29; Eichhoff 1831: 11, 21, 1868d: 419, 1878b: 216, 1881a: 48, 210, 1883a: 111, 137; Endrodi 1957b; Escherich 1923b: 487; Everts 1903: 765, 1922: 646; Fauvel 1889; Ferrari 1867a: 38, 40, 1867b: 114; Fleischer 1905, 1927; Formanek 1907: 49; Fricken 1889: 348; Gebien 1907: 197; Gilanders 1908; Grune 1979: 92-93; Hagedorn 1910a: 107; Hopkins 1914: 131, 1915b: 43; Houlbert 1922a: pl. 1; Jacquelin du Val & Fairmaire 1868: 107; Kaline 1975; Karpinski & Strawinski 1948: 156; Knotek 1892a: 37; Kuhn 1913: 1059; Lacordaire 1866: 383; Letzner 1891: 376; Lovendal 1889b: 54, 1898: 135; Lucas 1920: 675; Lucht 1987: 277; Negrn 1966b: 401; Nordlinger 1848: 237, 1850: 77, 1856: 20; Nunberg 1928a: 141, 1954: 66; Nusslin 1911a: 60, 255, 338, 378; Perris 1877a: 414; Pfeffer 1932b: 22, 1942a: 18, 1955a: 162, 1989a: pl. 12; Portevin 1935: 332; Postner 1974: 425; Quaschik 1953: 35; Ratzeburg 1837: 155, 1839: 189; Redtenbacher 1849a: 357, 1849b: 26, 1858: 834, 1874: 378; Reitter 1894a: 87, 1894c: 45, 1913a: 91, 1916: 297; Rey 1892b: 30; Rupertsberger 1880: 230; Schedl 1934f: 1642, 1952f: 87-88, 1980a: 21, 1981b: 68; Schimitschek 1937c: 54, 1955c: 86; Schlechtendal 1879: 126; Schwarz 1886: 42; Seidlitz 1872: 395, 1891a: 565, 1891b: 610; Stark 1952: 318; Stierlin 1898: 442; Stresemann et al. 1886: 354; Swaine 1909: 159; Wachtl 1895: 9. (**ms**) Eichhoff 1868d: 419; Escherich 1932b; Heisemann 1908a; Lucas 1920: 675; Schimitschek 1930b: 407.

retusus Olivier 1795b: 10 (*Scolytus*). Syntypes, sex²; Paris, France; MNHN, Paris. Synonymy: Eichhoff 1878b: 217.

Notes: (3) This name has 30 years priority, but it is virtually unused in the literature and is ignored here in favor of the well-known junior name.

References: (**hb**) Ratzeburg 1837: 155. (**ds**) Ratzeburg 1837: 155; Schilsky 1909: 189; Stein & Weise 1877: 164; Swaine 1909: 159. (**tx**) Balachowsky 1949a: 192; Eichhoff 1878b: 217;

Eggers 1936b: 31; Letzner 1891: 376; Olivier 1795b: 10; Ratzeburg 1837: 155; Swaine 1909: 159.

bituberculatus Hagedorn 1910b: 1. Holotype, sex?; Kamerun; MNB, Berlin.

Distribution: Africa (Cameroon).

References: (ds) Hagedorn 1910d: 62; Kleine 1913b: 132, 1914b: 311. (tx) Hagedorn 1910a: 107, 1910b: 1; Schedl 1961k: 679.

biuncus Reitter 1894c: 45. Holotype, sex?; Dalmatien; Zara; NHMB, Budapest.

Figures: Balachowsky 1949: 184, 192.

Distribution: Africa (Algeria/ Morocco), Europe (Italy/ Spain/ Yugoslavia).

Hosts: *Clematis cirrhosa*.

References: (bv) Grune 1979: 93. (en) Grandi 1951; Wachtl 1901: 381. (ee) Kleine 1908c: 214. (hb) Grandi 1951; Postner 1974: 425; Wachtl 1901: 381. (ds) Grune 1979: 93; Hagedorn 1910d: 62; Heyden, Reitter, & Weise 1906: 713; Kleine 1913a: 307, 1913b: 132, 1914a: 16; Kocher 1953: 133; Langhoffer 1915c: 158; Postner 1974: 425; Reitter 1894a: 87; Schaufuss 1915: 1241; Schedl 1971d: 432; Tredl 1907: 16; Wichmann 1964: 1–67. (tx) Balachowsky 1949a: 192; Grune 1979: 93; Hagedorn 1910a: 107; Postner 1974: 425; Reitter 1894a: 87, 1894c: 45, 1913a: 91; Schedl 1934f: 1642; Wachtl 1895: 9.

brownei Schedl 1964m: 309. Holotype, sex?; Nigeria: Abuja; BMNH, London, automatic.

Distribution: Africa (Nigeria).

References: (tx) Browne 1965a: 196, 1973a: 243; Roberts 1969b: 134; Schedl 1964m: 309, 1972q: 261.

punctatus Browne 1963b: 243. Holotype, sex?; Nigeria: Abuja; BMNH, London, preoccupied by Hopkins 1915.

References: (tx) Browne 1963b: 243, 1973a: 287; Nunberg 1969a: 382; Schedl 1964m: 309.

immutis Nunberg 1969a: 382. Holotype, sex?; Nigeria: Abuja; BMNH, London, automatic, no status.

References: (tx) Browne 1973a: 287; Nunberg 1969a: 382; Schedl 1972q: 261.

brunneus (Nunberg) 1973: 16 (*Hylonius*). Holotype, sex?; Massif Ruwenzori, Kalonge, Zaire; MRCB, Tervuren.

Distribution: Africa (Zaire).

Notes: (1) Wood 1986a: 74, 1986c: 267 (to *Xylocleptes*).

References: (tx) Nunberg 1973: 16; Wood 1986a: 74, 1986c: 267.

camerunus (Schedl) 1941d: 400 (*Dendrocranulus*). Holotype, sex?; Umgeb. Kamerunberg, Missellele; Schedl Collection in NHMW, Wien.

Distribution: Africa (Cameroon/ Zaire).

References: (tx) Schedl 1941d: 400, 1961k: 733, 1965g: 20, 1979c: 50.

castaneus Browne 1963b: 244. Holotype ♂; Ghana: Bobiri (near Kumasi); BMNH, London.

Distribution: Africa (Ghana).

References: (tx) Browne 1963b: 244.

congonus Hagedorn 1908: 375. Holotype, sex?; Kinchassa (Waelbroek), Congo; IRSNB, Brussels.

Distribution: Africa (Zaire).

References: (ds) Hagedorn 1910d: 62; Kleine 1913b: 132. (tx) Hagedorn 1905: 375, 1910a: 107; Schedl 1961k: 680.

cribratus Browne 1973a: 286. Holotype ♂; Zaire: Yangambi; MRCB, Tervuren.

Distribution: Africa (Zaire).

References: (tx) Browne 1973a: 286.

densepunctatus Schedl 1962k: 1076. Holotype, sex?; Tanganyika; Schedl Collection in NHMW, Wien.

Distribution: Africa (Tanzania).

References: (tx) Schedl 1962k: 1076, 1979c: 77.

granulipennis Schedl 1967e: 228. Holotype ♂; Bouenza cataract; NHMB, Budapest.

Distribution: Africa (Zaire).

References: (tx) Schedl 1967e: 228, 1979c: 112.

indicus Schedl 1971c: 374. Holotype ♀; [Bombay], India; Schedl Collection in NHMW, Wien.

Distribution: Asia (Maharashtra in India).

References: (tx) Schedl 1971c: 374, 1979c: 124.

irretitus Browne 1965a: 196. Holotype, sex?; Ivory Coast: Adiopodoume; RNH, Leiden.

Distribution: Africa (Ivory Coast).

References: (tx) Browne 1965a: 196.

linnavuorii Schedl 1968b: 145. Holotype, sex?; Ethiopia, Belleta Forest; MZU, Helsinki.

Distribution: Africa (Ethiopia).

References: (tx) Schedl 1968b: 145, 1979c: 139.

marginatus (Hagedorn) 1912: 353 (*Xestips*). Holotype ♀; Ost-Afrika; MNB, Berlin.

Figures: Nunberg 1960a: 292.

Distribution: Africa (Kenya/ Tanzania).

References: (ds) Kleine 1913b: 133, 1914b: 322. (tx) Browne 1963b: 243; Hagedorn 1912: 353; Hopkins 1914: 131; Schedl 1950c: 204, 207, 1961k: 680, 1962h: 64, 1962k: 1076.

meruensis Nunberg 1960a: 291. Holotype ♂; Tanganyika Terr.: Mt. Meru, Olkokola; MRCB, Tervuren. Synonymy: Schedl 1962h: 64, 1962k: 1076.

References: (tx) Nunberg 1960a: 291–292; Schedl 1962h: 64, 1962k: 1076.

robustus (Schedl) 1971g: 198 (*Mimidendrulus*). Holotype ♀; Fernando Po Island; Instituto Espanol de Entomologia, Madrid.

Distribution: Africa (Fernando Po Island).

Notes: (1) Wood examined a paratype at NHMW, Wien, and transferred this species to *Xylocleptes* (Wood 1983 notes, p. 16).

References: (tx) Schedl 1971g: 198.

rugulosus (Schedl) 1972e: 290 (*Mimidendruhus*). Holotype, sex?; Ghana: Ashanti Region, Kwadaso, 390 m; NHMB, Budapest.

Distribution: Africa (Ghana).

Notes: (1) Wood examined a paratype at NHMW, Wien and transferred this species to *Xylocleptes* (Wood 1983 notes, p. 16).

References: (tx) Schedl 1972e: 290, 1979c: 217.

sidanus (Schedl) 1952i: 13 (*Dryocoetes*). Holotype ♀; Congo Belge: Mulungu; MRCB, Tervuren.

Distribution: Africa (Zaire).

Hosts: *Caesalpinia decapetala*, *Clematis sinensis*, *Geniosporium pahudosum*, *Loranthus* sp., *Melanthera brownii*, *Sida rhombifolia*, *Strombosia grandifolia*.

Notes: (1) Wood examined paratypes at NHMW, Wien, and transferred this species to *Xylocleptes* (Wood 1983 notes, p. 16).

References: (ds) Mayne & Donis 1962: 306; Murayama 1957c: 608; Schedl 1961k: 662. (tx) Murayama 1957c: 608; Schedl 1952i: 13, 1961k: 662, 1979c: 228.

sparsipunctatus (Eggers) 1935c: 308 (*Cyrtogenius*). Holotype ♂; Congostaat (Ecuator: Flandria); MRCB, Tervuren.

Distribution: Africa (Zaire).

Notes: (1) Schedl 1964m: 309 (to *Xylocleptes*).

References: (ds) Schedl 1964j: 41, 1964m: 309, 1965e: 352, 1971g: 194. (tx) Browne 1963b: 243; Eggers 1935c: 308; Schedl 1964m: 309, 1979c: 233.

usambaricus Schedl 1950c: 208. Holotype, sex?; O. Afrika, Usambara; Schedl Collection in NHMW, Wien.

Figures: Schedl 1961k: 681.

Distribution: Africa (Kenya/ Tanzania/ Zaire).

Notes: (1) Schedl 1952i: 9 (treated this species in *Tiarophorus*).

References: (ds) Schedl 1962h: 59, 1962k: 1077. (tx) Nunberg 1960: 293; Schedl 1950c: 208, 1952i: 9, 1954e: 77, 1957d: 74, 1961k: 681, 1962k: 1077, 1979c: 262.

Genus *Dendrocranulus* Schedl

DENDROCRANULUS SCHEDL 1937h: 165. Type-species: *Dendrocranulus tardus* Schedl, subsequent designation by Schedl 1938a: 169.

Keys: Wood 1982b: 708.

Notes: (3) Schedl 1937h: 165 (*linearis* Eggers, nomen nudum, *volustus* Eggers, nomen nudum, synonymy?). All species in this genus breed in vines of the Cucurbitaceae.

References: (hb) Wood, S. L. 1986a: 74. (ds) Wood, S. L. 1986a: 74. (tx) Arnett 1960: 1043, 1968: 1043; Schedl 1937h: 165, 1938a: 169, 1939h: 45–48; Wood, S. L. 1961a: 11, 1982b: 708–723, 1986a: 74.

acutus Wood 1979b: 139. Holotype ♀; Rancho Grande, Pittier National Park, Aragua, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Vine.

References: (tx) Wood, S. L. 1979b: 139.

barbatus Schedl 1939m: 172. Lectotype ♀; Argentina, Vicente Lopez; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 34.

Distribution: South America (Argentina/ Brazil).

Hosts: *Cayaponia ficifolia*.

References: (cn) Costa Lima 1956. (hb) Bruch 1939: 203; Costa Lima 1956; Viana 1964: 124. (ds) Blackwelder 1947: 781; Costa Lima 1956; Viana 1964: 124. (tx) Bruch 1939: 203; Costa Lima 1956; Schedl 1939m: 172, 1952a: 446, 1979c: 34.

brasiliensis (Schedl) 1963d: 224 (*Xylocleptes*). Holotype ♀; Brasilien: Santa Catarina, Nova Teutonia; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

Hosts: *Cedrela* sp., *Dalbergia* sp., *Morus nigra*, *Sapota gonocarpa*.

References: (tx) Schedl 1963d: 224, 1979c: 45.

carbonarius (Ferrari) 1867: 41 (*Xylocleptes*).

Holotype ♂; Cuba; NHMW, Wien.

Distribution: Antilles Islands (Cuba/ Jamaica), North America (Florida in USA).

References: (ds) Blackwelder 1947: 781; Bright 1981d: 154, 1985c: 173; Gemminger & Harold 1872: 2693; Hagedorn 1910d: 66; Kleine 1913b: 136, 1914b: 378; Leng & Mutchler 1917: 220; Wood, S. L. 1982b: 721. (tx) Bright 1985c: 173; Eichhoff 1878b: 296; Ferrari 1867a: 41; Hagedorn 1910a: 96; Hopkins 1915b: 43; Schedl 1938a: 169, 172; Wood, S. L. 1973c: 176, 1974d: 280, 1982b: 721.

floridensis Hopkins 1915b: 43 (*Xylocleptes*).

Holotype ♀; Biscayne Bay, Florida [USA]; USNM, Washington. Synonymy: Wood 1973c: 176.

References: (hb) Chamberlin 1939: 460. (ds) Blatchley & Leng 1916: 607; Chamberlin 1939: 460; Leng 1920: 342. (tx) Blatchley & Leng 1916: 607; Chamberlin 1939: 460; Hopkins 1915b: 43; Wood, S. L. 1973c: 176, 1974d: 280.

anoniae Hopkins 1915b: 43 (*Xylocleptes*). Holotype ♀; Florida [USA]; USNM, Washington. Synonymy: Wood 1973c: 176.

References: (hb) Chamberlin 1939: 460. (ds) Blatchley & Leng 1916: 607; Chamberlin 1939: 460; Kleine 1934a: 153; Leng 1920: 342. (tx) Blatchley & Leng 1916: 607; Chamberlin 1939: 460; Hopkins 1915b: 43; Wood, S. L. 1973c: 176, 1974d: 280.

columbianus Schedl 1937h: 167. Holotype, sex?; Columbien; Schedl Collection in NHMW, Wien.

Distribution: South America (Colombia).

References: (ds) Blackwelder 1947: 781. (tx) Schedl 1937h: 167, 1938a: 169, 1979c: 60.

conditus Wood 1974a: 23. Holotype ♂; Bumbun Forest Station, Barinas, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Vine.

References: (tx) Wood, S. L. 1974a: 23.

- confinis** Wood 1974a: 26. Holotype ♂; Volcan de Chiriquí, near Cerro Punta, Chiriquí, Panama; Wood Collection.
Distribution: North America (Panama).
Hosts: Vine.
References: (ds) Wood, S. L. 1982b: 718. (tx) Wood, S. L. 1974a: 26, 1982b: 718.
- consimilis** Wood 1974a: 23. Holotype ♂; Los Corchos, Nayarit, Mexico; Wood Collection.
Distribution: North America (Honduras/ Nayarit in Mexico).
Hosts: *Cayaponia microdonta*, *Sicydium tannifolium*.
References: (hb) Wood, S. L. 1982b: 711. (ds) Atkinson & Equihua 1985b: 236; Wood, S. L. 1982b: 711. (tx) Wood, S. L. 1974a: 23, 1982b: 711.
- costalimai** Schedl 1938a: 169. Lectotype, sex?; Santos, S. P. [Sao Paulo, Brazil]; USNM, Washington, designated by Anderson & Anderson 1971: 10.
Distribution: South America (Brazil).
References: (cn) Costa Lima 1956. (hb) Costa Lima 1956. (ds) Blackwelder 1947: 781; Costa Lima 1956; Schedl 1966f: 85, 1970e. (tx) Anderson, W. H. & Anderson 1971: 10; Costa Lima 1956; Schedl 1938a: 169–170, 1979c: 66.
- costaricensis** Schedl 1938a: 171. Holotype ♂; Turrialba, Costa Rica; Eggers Collection, in NHMW, Wien.
Distribution: North America (Costa Rica/Honduras).
Hosts: *Cayaponia microdonta*.
References: (ds) Blackwelder 1947: 781; Schedl 1981b: 715; Wood, S. L. 1982b: 715. (tx) Schedl 1938a: 171, 1979c: 67; Wood, S. L. 1982b: 715.
- cucurbitae** (LeConte) 1879: 519 (*Xylocleptes*). Holotype ♀; Utah [USA]; MCZ, Cambridge.
Figures: Atkinson et al. 1986: 28, 67.
Distribution: North America (Chihuahua, Mexico, Michoacan, Morelos in Mexico/ Arizona, California, S Nevada, New Mexico, S Utah in USA).
Hosts: *Cucurbita digitata*, *C. foetidissima*, *Echinocystis macrocarpa*, *Luffa acutangulata*.
References: (hb) Atkinson et al. 1986: 60; Burgos & Saucedo 1983: 97; Chamberlin 1939: 460; Lengerken 1939: 65, 1954: 85. (ds) Anonymous 1926c: 520; Atkinson & Equihua 1985a: 87, 1985b: 236, 1988: 88; Atkinson et al. 1986: 60; Blackwelder 1947: 778; Burgos & Saucedo 1983: 97; Chamberlin 1939: 460; Cockerell 1897: 150; Cockerell et al. 1907; Fall 1906: 202; Fall & Cockerell 1907: 217; Ferrer 1942; Hagedorn 1910d: 62; Henshaw 1882: 269; Kleine 1913b: 132, 1914b: 351, 397, 1934a: 153; Knaus 1909: 73; Leng 1920: 342; Leonard 1928: 520; Schwarz 1886: 42; Swaine 1909: 159; Wood, S. L. 1982b: 718. (tx) Atkinson et al. 1986: 28, 67; Chamberlin 1939: 460; Hagedorn 1910a: 107; Hopkins 1915b: 43; LeConte 1879: 519; Muskus, A. 1984: 91; Schedl 1940a: 348; Schwarz 1886: 42; Swaine 1909: 159; Wood, S. L. 1973c: 176, 1982b: 718.
- californicus* Hopkins 1915b: 44 (*Xylocleptes*). Holotype ♀; Pomona, California [USA]; USNM, Washington. Synonymy: Wood 1973c: 176.
References: (hb) Bright & Stark 1973: 73; Chamberlin 1939: 460. (ds) Bright & Stark 1973: 73; Chamberlin 1939: 460; Leng 1920: 342. (tx) Bright 1971a: 66–67; Chamberlin 1939: 460; Hopkins 1915b: 43–44; Wood, S. L. 1973c: 176.
- punctatus* Hopkins 1915b: 44 (*Xylocleptes*). Holotype ♀; Mesilla, New Mexico [USA]; USNM, Washington. Synonymy: Wood 1973c: 176.
References: (hb) Chamberlin 1939: 461. (ds) Chamberlin 1939: 461; Kleine 1934a: 153; Leng 1920: 342. (tx) Chamberlin 1939: 461; Hopkins 1915b: 43–44; Wood, S. L. 1973c: 176.
- venturina* Hopkins 1915b: 44 (*Xylocleptes*). Holotype ♀; Ventura Co., California [USA]; USNM, Washington. Synonymy: Wood 1973c: 176.
References: (hb) Chamberlin 1939: 461. (ds) Chamberlin 1939: 461; Kleine 1934a: 153; Leng 1920: 342. (tx) Bright 1971: 67; Chamberlin 1939: 461; Hopkins 1915b: 43–44; Wood, S. L. 1973c: 176.
- declivis** Schedl 1937b: 166. Holotype ♀; Costa Rica, Turrialba; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica).
Hosts: *Potakowskia tacaco*, *Sechium edule*.
References: (ds) Atkinson & Equihua 1985b: 236; Blackwelder 1947: 781; Wood, S. L. 1982b: 719. (tx) Schedl 1937b: 166, 1938a: 169, 1979c: 76; Wood, S. L. 1982b: 719.
- diversus** Wood 1971: 37. Holotype ♂; Puerto Viejo, Limon Prov., Costa Rica; Wood Collection.
Distribution: North America (Costa Rica/Honduras).
Hosts: *Cayaponia microdonta*, etc.
References: (ds) Wood, S. L. 1982b: 722. (tx) Wood, S. L. 1971: 37, 1982b: 722.
- fulgidus** Wood 1974a: 25. Holotype ♂; Volcan de Chiriquí, near Cerro Punta, Chiriquí, Panama; Wood Collection.
Distribution: North America (Panama).
Hosts: Vine.
References: (ds) Wood, S. L. 1982b: 716. (tx) Wood, S. L. 1974a: 25, 1982b: 716.
- gracilis** Wood 1982a: 227. Holotype ♀; Km 58 on Xochimilco-Oaxtepec highway, Morelos, Mexico, 1970 m; Wood Collection.
Distribution: North America (Morelos in Mexico).
Hosts: *Sechium edulis*.
References: (hb) Atkinson et al. 1986: 34; Burgos & Saucedo 1983: 97. (ds) Atkinson & Equihua 1985b: 236; Atkinson et al. 1986: 34; Burgos & Saucedo 1983: 97. (tx) Wood, S. L. 1982a: 227.
- guatemalensis** (Hopkins) 1915b: 44 (*Xylocleptes*). Holotype ♀; Panzos, Guatemala; USNM, Washington.
Distribution: Antilles Islands (Guadeloupe), North America (Honduras/ Veracruz in Mexico).

Hosts: *Cayaponia microdonta*.

References: **(hb)** Atkinson et al. 1986: 34. **(ds)** Atkinson & Equihua 1985a: 87; Atkinson et al. 1986: 34; Blackwelder 1947: 778; Bright 1985c: 173; Wood, S. L. 1982b: 720. **(tx)** Bright 1985c: 173; Hopkins 1915b: 43–44; Wood, S. L. 1976a: 348, 1982b: 720.

parallelus Schedl 1938a: 172. Holotype, sex?; Guadeloupe, Env. Trois Rivières; Eggers Collection, in NHMW, Wien. Synonymy: Wood 1976a: 348.

References: **(ds)** Blackwelder 1947: 781; Schedl 1976a: 51. **(tx)** Anderson, W. H. & Anderson 1971: 24; Eggers 1940a: 108; Schedl 1938a: 172, 1939h: 45–46, 1979c: 185; Wood, S. L. 1976a: 348.

knausi (Hopkins) 1915b: 44 (*Xylocleptes*). Holotype ♀; Ashland, Kansas [USA]; USNM, Washington. Distribution: North America (Chihuahua in Mexico/ Kansas, Louisiana, New Mexico, Oklahoma, Texas in USA).

Hosts: *Cucurbita foetidissima*, *C. pepo*, *C. sp.*

References: **(hb)** Chamberlin 1939: 461. **(ds)** Atkinson & Equihua 1988: 80; Chamberlin 1939: 461; Leng 1920: 342; Wood, S. L. 1982b: 722. **(tx)** Chamberlin 1939: 461; Hopkins 1915b: 43–44; Schedl 1979c: 120; Wood, S. L. 1982b: 722.

limatus Wood 1974a: 22. Holotype ♂; Bumbum Forest Station, Barinas, Venezuela, 150 m; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Cucurbitaceae vine.

References: **(tx)** Wood, S. L. 1974a: 22.

limbatus (Blandford) 1898b: 190 (*Dryocoetes*). Lectotype ♂; Volcan de Agua, 8500–10,500 ft., Guatemala; BMNH, London, designated by Wood 1982b: 721.

Distribution: North America (Guatemala).

References: **(ds)** Blackwelder 1947: 778; Hagedorn 1910d: 67; Kleine 1913b: 136, 1914b: 362; Leng & Mutchler 1917: 220; Murayama 1957c: 606; Wood, S. L. 1982b: 721. **(tx)** Blandford 1898b: 190; Hagedorn 1910a: 76; Hopkins 1915b: 43; Murayama 1957c: 606; Wood, S. L. 1982b: 721.

limbellus Wood 1979b: 139. Holotype ♀; Merida, Merida, Venezuela, 5300 ft.; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Cucurbita sp.*

References: **(tx)** Wood, S. L. 1979b: 139.

limitaris Wood 1979b: 140. Holotype ♀; Rancho Grande, Pittier National Park, Aragua, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Vine.

References: **(tx)** Wood, S. L. 1979b: 140

limus Wood 1971: 38. Holotype ♂; Rio Damitas in Dota Mountains, San Jose Prov., Costa Rica; Wood Collection,

Distribution: North America (Costa Rica).

Hosts: *Sechium edule*, etc.

References: **(hb)** Wood, S. L. 1982b: 712. **(ds)** Wood, S. L. 1982b: 712. **(tx)** Wood, S. L. 1971: 38, 1982b: 712.

macilentus (Blandford) 1898b: 190 (*Dryocoetes*). Lectotype ♀; Jalapa, Veracruz, Mexico; BMNH, London, designated by Wood 1973c: 176.

Distribution: North America (Costa Rica/ Veracruz in Mexico).

Hosts: Vine.

References: **(ds)** Blackwelder 1947: 778; Ferrer 1942; Hagedorn 1910d: 67; Kleine 1913b: 136, 1914b: 351; Murayama 1957c: 606; Wood, S. L. 1982b: 720. **(tx)** Blandford 1898b: 190; Hagedorn 1910a: 96; Murayama 1957c: 606; Schedl 1937h: 166, 1940a: 348; Wood, S. L. 1973c: 176, 1982b: 720.

grossopunctatus Schedl 1937h: 166. Holotype, sex?; Costa Rica, [San Isidro de] Coronado; Schedl Collection in NHMW, Wien. Synonymy: Wood 1973c: 176.

References: **(ds)** Blackwelder 1947: 781. **(tx)** Schedl 1937h: 166, 1938a: 169, 1979c: 113; Wood, S. L. 1973c: 176.

major Schedl 1938a: 170. Lectotype, sex?; Bolivien, Cochabamba; USNM, Washington, designated by Anderson & Anderson 1971: 19.

Distribution: South America (Bolivia).

Notes: (3) Schedl 1979c: 145 (designation of lectotype invalid).

References: **(ds)** Blackwelder 1947: 781; Schedl 1966f: 145. **(tx)** Anderson, W. H. & Anderson 1971: 19; Schedl 1938a: 170, 175, 1939m: 173, 1979c: 145.

maurus (Blandford) 1898b: 191 (*Dryocoetes*). Holotype ♀; El Tumbador, San Marcos, Guatemala; BMNH, London.

Distribution: North America (Guatemala/ Honduras/ Chiapas, Veracruz in Mexico).

Hosts: *Cayaponia microdonta*.

References: **(ds)** Atkinson & Equihua 1986a: 420; Blackwelder 1947: 778; Estrada & Atkinson 1988: 206; Hagedorn 1910d: 67; Kleine 1913b: 135, 1914b: 362; Murayama 1957c: 606; Wood, S. L. 1982b: 715. **(tx)** Blandford 1898b: 191; Hagedorn 1910a: 96; Murayama 1957c: 606; Wood, S. L. 1974d: 280, 1982b: 715.

huehuetanus Schedl 1940a: 344. Lectotype ♂; Huehuetan, Tonala, Chiapas, Mexico; Schedl Collection in NHMW, Wien, designated by Wood 1974d: 280. Synonymy: Wood 1974d: 280.

References: **(ds)** Blackwelder 1947: 781; Ferrer 1942. **(tx)** Schedl 1940a: 344, 1979c: 120; Wood, S. L. 1974d: 280.

mexicanus Wood 1986: 272. Holotype ♀; Naolinco, Veracruz, Mexico; Wood Collection.

Distribution: North America (Veracruz in Mexico).

Hosts: *Secchium edulis*.

References: (tx) Wood, S. L. 1986c: 272.

modus Wood 1979b: 140. Holotype ♀; Merida, Merida, Venezuela, 1700 m; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Cucurbita* sp.

References: (tx) Wood, S. L. 1979b: 140.

pilosus Eggers 1943a: 357. Holotype, sex?; Bolivia (Cochabamba); MNHN, Paris.

Distribution: South America (Bolivia).

References: (tx) Eggers 1943a: 357.

pinguis Wood 1979b: 140. Holotype ♀; Bumbum Forest Station, Barinas, Venezuela, 150 m; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Vine.

References: (tx) Wood, S. L. 1979b: 140.

pumilus Wood 1971: 38. Holotype ♂; Rio Damitas in Dota Mountains, San Jose Prov., Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: Vine.

References: (ds) Wood, S. L. 1982b: 713. (tx) Wood, S. L. 1971: 38, 1982b: 713.

reditus Wood 1974a: 23. Holotype ♂; 9 km S Barancas, Barinas, Venezuela, 150 m; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Cucurbitaceae vine.

References: (tx) Wood, S. L. 1974a: 23.

rubripes (Eggers) 1943a: 358 (*Pityophthorus*). Holotype ♂; Bolivia (Cochabamba); MNHN, Paris.

Distribution: South America (Bolivia).

Notes: (1) Schedl 1951m: 73 (to *Dendrocranulus*).

References: (tx) Eggers 1943a: 358; Schedl 1943a: 358, 1951m: 73, 1964m: 309, 1979c: 214.

rudis Wood 1974a: 26. Holotype ♂; 19 km E Carapan, Michoacan, Mexico; Wood Collection.

Distribution: North America (Durango, Michoacan in Mexico).

Hosts: Vine.

References: (ds) Wood, S. L. 1982b: 717. (tx) Wood, S. L. 1974a: 26, 1982b: 717.

schedli Wood 1966b: 23. Lectotype, sex?; Costa Rica, Hamburgfarm on Rio Raventazon; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 71, automatic.

Distribution: North America (Costa Rica).

Hosts: Vine.

References: (ds) Wood, S. L. 1982b: 716. (tx) Schedl 1979c: 71; Wood, S. L. 1966b: 23, 1982b: 176.

cucurbitae Schedl 1939h: 45. Lectotype, sex?; Costa Rica, Hamburgfarm on Rio Raventazon; Schedl Collection in NHMW, Wien, desig-

nated by Schedl 1979c: 71, preoccupied by LeConte 1879.

References: (ds) Blackwelder 1947: 781. (tx) Schedl 1939h: 45, 1979c: 71; Wood, S. L. 1965: 23.

sechii Nunberg 1972b: 193. Holotype ♂; Barueri, Sao Paulo, Brazil; MZUSP, Sao Paulo.

Figures: Nunberg 1972a, 1972b: 194.

Distribution: South America (Brazil).

Hosts: *Secchium edule*.

References: (tx) Nunberg 1972a, 1972b: 193–194.

securus Wood 1974a: 25. Holotype ♂; Rio Damitas in Dota Mountains, San Jose Prov., Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: Vine.

References: (ds) Wood, S. L. 1982b: 715. (tx) Wood, S. L. 1974a: 25, 1982b: 715.

sobrinus Wood 1984: 114. Holotype ♂; Veracruz, Veracruz, Mexico; Wood Collection.

Distribution: North America (Veracruz in Mexico).

Hosts: *Luffa acutangula*.

References: (ds) Atkinson & Equihua 1985b: 236. (tx) Wood, S. L. 1984: 114.

tardulus Wood 1971: 37. Holotype ♂; Rio Damitas in Dota Mountains, San Jose Prov., Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Secchium edule*.

References: (ds) Atkinson et al. 1986: 62; Wood, S. L. 1982b: 712. (tx) Wood, S. L. 1971: 37, 1982b: 712.

tardus Schedl 1937h: 165. Holotype ♀?; Costa Rica, La Caja; Schedl Collection in NHMW, Wien.

Distribution: North America (Costa Rica/Honduras).

Hosts: *Cayaponia macrodonta*.

References: (ds) Blackwelder 1947: 781; Wood, S. L. 1982b: 713. (tx) Schedl 1937h: 165, 1938a: 169, 1979c: 250; Wood, S. L. 1982b: 713.

taguyaensis Schedl 1939m: 173. Lectotype ♀; Argentina, Vicente Lopez; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 250.

Distribution: South America (Argentina/ Brazil).

Hosts: *Cayaponia ficifolia*.

References: (cn) Costa Lima 1956. (hb) Costa Lima 1956; Viana 1964: 124. (ds) Blackwelder 1947: 781; Costa Lima 1956; Schedl 1973d: 154; Viana 1964: 124. (tx) Costa Lima 1956; Schedl 1939m: 173, 1952a: 446, 1979c: 250.

uncinatus (Eichhoff) 1872a: 134 (*Xylocleptes*). Holotype, sex?; Bogota; Hamburg Museum, lost.

Distribution: South America (Colombia).

Notes: (3) This species might possibly belong to *Acanthotomicus*.

References: (ds) Blackwelder 1947: 778; Gemminger & Harold 1872: 2693; Hagedorn 1910d: 62; Kleine 1913b: 132, 1914b: 342; Wood, S. L.

1982b: 714. (tx) Eichhoff 1872a: 134; Hagedorn 1910a: 107; Wood, S. L. 1982b: 714.

vicinalis Wood 1974a: 24. Holotype ♂; Rio Damitas in Dota Mountains, San Jose Prov., Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: Vine.

References: (ds) Wood, S. L. 1982b: 717. (tx) Wood, S. L. 1974a: 24, 1982b: 717.

vicinus Wood 1974a: 25. Holotype ♀; La Lima, Cortez, Honduras; Wood Collection.

Distribution: North America (Costa Rica/Honduras).
Hosts: *Cayaponia microdonta*, *Potakowskia tacaco*, etc.

References: (ds) Wood, S. L. 1982b: 717. (tx) Wood, S. L. 1974a: 25, 1982b: 717.

vinealis Wood 1974a: 24. Holotype ♂; La Lima, Cortez, Honduras; Wood Collection.

Distribution: North America (Honduras).

Hosts: *Cayaponia microdonta*.

References: (ds) Atkinson & Equihua 1986a: 420; Estrada & Atkinson 1988: 206; Wood, S. L. 1982b: 714. (tx) Wood, S. L. 1974a: 24, 1982b: 714.

Genus *Dactylotrypes* Eggers

DACTYLOTRYPES EGGER 1927e: 37. Type-species: *Dactylotrypes uytenboogaarti* Eggers = *Xyloterus longicollis* Wollaston, monobasic.

References: (hb) Wood, S. L. 1986a: 74. (ds) Wood, S. L. 1986a: 74. (tx) Balachowsky 1949a: 185; Eggers 1927e: 37; Enderlien 1929: 146–147; Schedl, Lindberg, & Lindberg 1959: 24; Wood, S. L. 1986a: 74.

longicollis (Wollaston) 1864: 256 (*Xyloterus*). Holotype, sex?; Rio Palmas of Fuerteventura; BMNH, London.

Figures: Balachowsky 1949a: 186, 1963a: 1289.

Distribution: Atlantic Islands (Fuerteventura, Gran Canaria, Tenerife in Canary Islands/ Madeira), Europe (introduced into France).

Hosts: *Butia eriospatha*, *Chamaecrops humilis*, *Dracena drace*, *Phoenix canariensis*, *P. pumila*, *Trachycarpus excelsus*.

References: (cn) Anonymous 1979p. (ds) Anonymous 1979p; Brakman 1966b: 205; Gemminger & Harold 1872: 2682; Kleine 1913b: 169, 1914a: 20; Schedl, Lindberg, & Lindberg 1959: 23. (tx) Ferrari 1867a: 10; Schedl, Lindberg, & Lindberg 1959: 23–24; Wollaston 1864: 256, 1865: 238.

uytenboogaarti Eggers 1927e: 38. Lectotype ♀; Gran Canaria; USNM, Washington, designated by Anderson & Anderson 1971: 35. Synonymy: Schedl et al. 1959: 23.

References: (cn) Anonymous 1960n: 1105; Enderlien 1929; Grandi 1951; Herfs 1950: 6; Mumford 1960: 23, 1962: 22; Sampo & Olmi 1975. (ce) Perrot 1955: 64; Wichmann 1955a: 103. (hb) Grandi 1951; Sampo & Olmi 1975; Uytenboogaart 1927: 40–42. (ds) Anonymous

1960u: 1105; Balachowsky 1963a: 1288; Jansson 1940: 63; Kleine 1934a: 157; Lepesme et al. 1948: 642; Lundblad 1958: 489; Mumford 1960: 23, 1962: 22; Palacios 1973; Perrot 1955: 64; Uytenboogaart 1937: 113–117, 1946: 80; Wichmann 1955a: 103. (tx) Anderson, W. H. & Anderson 1971: 35; Balachowsky 1949a: 185, 1963a: 1289; Eggers 1927e: 38; Enderlien 1929: 147; Schedl 1934f: 1643, 1960b: 162, 1979c: 263; Schedl, Lindberg, & Lindberg 1959: 24.

draconis Enderlein 1929: 148. Syntypes, sex?; Tenerife, Icod.; not located. Synonymy: Schedl, Lindberg, & Lindberg 1959: 24.

References: (cn) Grandi 1951; Souphieff & Scherbinovskaja 1937: 26. (hb) Enderlein 1929: 148; Grandi 1951. (ds) Kleine 1934a: 157; Souphieff & Scherbinovskaja 1937: 26. (tx) Enderlein 1929: 148; Schedl 1934f: 1643–1644; Schedl, Lindberg, & Lindberg 1959: 24.

Genus *Lymanator* Lovendal

LYMANTOR LOVENDAL 1889: 25, 68. Type-species: *Lymanator sepicola* Lovendal = *Tomicus coryli* Perris, monobasic.

Keys: Reitter 1913a: 91 for Europe, Wood 1982b: 707 for North America.

References: (hb) Wood, S. L. 1986a: 74. (ds) Wood, S. L. 1982b: 706, 1986a: 74. (tx) Arnett 1960: 1044, 1968: 1044; Balachowsky 1949a: 189; Blackman 1922b: 78, 121; Chamberlin 1939: 468–469; Dodge 1938: 19; Hopkins 1915b: 8; Karaman 1972: 109; Lovendal 1889: 25, 68; Nusslin 1912: 99–107; Peyerimhoff 1949: 301; Pfeffer 1989a: 58; Reitter 1890: 175, 1913a: 85; Schedl 1933a: 169, 1964m: 306; Scheerpeltz & Winkler 1930: 258; Spessivtsev 1922: 473; Vinogradov-Nikitin & Zaitzev 1926: 257–293; Wood, S. L. 1982b: 706, 1986a: 74.

aceris (Lindemann) 1875: 140 (*Dryocoetes*). Syntypes 2 ♂; Moskau; not given.

Distribution: Europe (Czechoslovakia/ France/ Germany/ Hungary/ Poland/ W USSR).

Hosts: *Acer campestre*, *A. platanoides*, *A. pseudo-platanus*, *A. tataricum*, *Corylus avellana*, *Prunus padus*.

Notes: (1) Reitter 1890: 175 (to *Lymanator*). (3) Stark 1936: 153 (aberration described as var. *schablioviskii*, no status).

References: (ay) Lekander 1959b: 36; Nunberg 1928a: 141; Nusslin 1911a: 60, 255, 1912b: 99. (bv) Grune 1979: 97. (cn) Koppen 1882: 260; Nusslin 1913: 290; Rhumbler 1922: 311, 1927: 350; Wachtl 1901: 381–382; Wichmann 1927b: 353. (ce) Kleine 1908c: 217; Nosek 1959b: 87; Nusslin 1927: 350; Pfeffer & Prihoda 1950: 6; Sedlacek 1935a: 162. (hb) Barbey 1901: 27, 103; Dombrowsky 1887, 1888; Eichhoff 1881a: 52, 266; Henschel 1895a: 188; Karpinski & Strawinski 1948: 156; Kurenzov 1935a: 36, 1948b: 121; Lekander 1959b: 36;

Lengerken 1954: 85; Lindemann 1875a: 140, 1881a: 238; Nosek 1959b: 87; Nunberg 1927b: 69; Nusslin 1913: 290, 1927: 350; Pfeffer 1942a: 18; Postner 1974: 427; Rhumbler 1922: 331, 1927: 350; Rupertsberger 1879: 231, 1880: 232; Sedlacek 1935a: 162; Spessittsev 1913a: 94; Stark 1926a: 334, 1952: 316; Wachtl 1901: 381; Wichmann 1927b: 353. **(ds)** Endrodi 1958b; Escherich 1932b; Grune 1979: 97; Hagedorn 1910d: 65; Henschel 1895a: 188; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 713; Horion 1951; Karpinski & Strawinski 1948: 156; Kleine 1912a: 305, 1913a: 36, 1913b: 135, 1934a: 155; Kolbe, W. 1916: 257; Koppen 1882: 260; Kraatz 1876c: 107; Krivolutskaya 1983; Kurenzov 1935a: 36, 1936a: 110, 1936b: 350, 1938a: 59; Lindemann 1884b: 264; Lomnicki 1913b: 148; Lovendal 1890c: 207; Lucht 1987: 277; Nunberg 1928b: 88, 111, 1954: 65; Pfeffer 1931b: 74, 1989a: 59; Pittioni 1943: 176; Postner 1974: 427; Reitter 1894a: 88, 1897a: 78, 1916: 297; Roubal 1941: 266; Schauffuss 1915: 1241; Schilsky 1909: 189; Seidlitz 1891b: 612; Sokanovskii 1960; Stark 1926a: 334, 1952: 316; Stein & Weise 1877: 165; Tredl 1907: 18; Wichmann 1927a: 79; Yanovskii & Tegshzhargal 1985: 409. **(tx)** Balachowsky 1949a: 189; Barbey 1901: 27, 103; Dombrowsky 1887, 1888; Eggers 1910f, 1942c: 28; Eichhoff 1878b: 294, 1881a: 52, 266, 1883a: 115, 140; Endrodi 1957a: 307, 1957b; Fleischer 1927; Formanek 1907: 50; Gebien 1907: 197; Grune 1979: 97; Hagedorn 1910a: 96; Henschel 1895a: 188; Karpinski & Strawinski 1948: 156; Kuhnt 1913: 1059; Kurenzov 1941a: 165, 1948b: 121; Lekander 1959b: 36; Lindemann 1875a: 140, 1881a: 238; Lovendal 1890e: 207; Lucht 1987: 277; Nunberg 1927b: 69–74, 1928a: 141, 1954: 65; Nusslin 1911a: 255, 60, 1912: 99; Peyerimhoff 1919: 254; Pfeffer 1932b: 22, 1942a: 18, 1944a: 131, 1955a: 161; Postner 1974: 427; Reitter 1890: 175, 1894a: 88, 1913a: 91, 1916: 297; Rhumbler 1922: 331, 1927: 350; Rupertsberger 1879: 231, 1880: 232; Schedl 1934f: 1642; Seidlitz 1891b: 612; Sokanovskii 1954: 18, 1960: 677; Spessittsev 1913a: 92, 94, 1922a: 474, 1931: 54; Stark 1935: 153, 1936: 153, 1952: 316. **(ms)** Escherich 1932b; Kraatz 1876c: 107; Pfeffer 1944a: 131.

alaskanus Wood 1978b: 399. Holotype ♂; Bonanza Creek, 30 miles SW Fairbanks, Alaska; Wood Collection.

Distribution: North America (Alaska).

Hosts: Presumably *Salix* sp.

References: **(ds)** Wood, S. L. 1982b: 707. **(tx)** Wood, S. L. 1978b: 399, 1982b: 707.

coryli (Perris) 1855: 78 (*Tomicus*). Syntypes, sex?; Dept. Landes, France; MNHN, Paris.

Figures: Grune 1979: 96, Postner 1974: 426 (adult).

Distribution: Asia (Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/

Hungary/ Italy/ Norway/ Poland/ Spain/ Sweden/ W USSR/ Yugoslavia).

Hosts: *Acer campestre*, *A. platanoides*, *Carpinus betulus*, *Corylus avellana*, *Prunus padus*, *Pyrus malus*, *Quercus* sp., *Rhamnus cathartica*, *R. frangula*, *Syringa vulgaris*.

References: **(ay)** Nusslin 1911a: 338, 60, 89, 1912b: 99. **(bv)** Grune 1979: 97. **(en)** Alkan 1959b: 197; Berlese 1915; Grandi 1951; Kleine 1932a: 302; Kontkanen 1932: 63; Kurenzov 1935c: 189; Nusslin 1913: 290; Rhumbler 1922: 331; Schimitschek 1955a: 141; Wachtl 1901: 381; Wichmann 1927b: 353. **(cc)** Ehnstrom 1983; Fuller 1958: 99; Kleine 1908c: 217; Kurenzov 1934a: 50; Michalski & Ratajczak 1989; Nosek 1954: 214, 1959a: 118, 1959b: 87; Nusslin 1927: 350; Pfeffer & Prihoda 1950: 4; Rybinski 1897: 61; Saalas 1930: 118; Scheerpeltz & Hofler 1948: 281; Schimitschek 1955a: 146; Sedlacek 1935a: 162. **(hb)** Alkan 1959b; Altum 1881c: 322; Barbey 1901: 27, 103; Beffa 1961; Berlese 1915; Bukowsky 1930; Dombrowsky 1887, 1888; Ehnstrom 1983; Eichhoff 1881a: 52, 265; Grandi 1951; Hagedorn 1903a; Henschel 1895a: 188; Karpinski 1933b: 30; Karpinski & Strawinski 1948: 156; Kleine 1932a: 302; Knotek 1894a: 559; Lengerken 1939: 64, 1954: 85; Lindemann 1875a: 141, 1881a: 238; Munro 1926: 70; Nosek 1959a: 118, 1959b: 87; Nunberg 1927b: 29; Nusslin 1898: 275, 1913: 290, 1927: 350; Palm 1954a: 184, 1954b: 28; Pfeffer 1942a: 18, 1989a: 59; Postner 1974: 427; Rhumbler 1922: 331, 1927: 350; Rupertsberger 1880: 231; Schimitschek 1955a: 146; Sedlacek 1935a: 162; Simmel 1919b: 104; Spessittsev 1913a: 94; Stark 1926a: 335, 1952: 315; Taschenberg 1901: 109; Wachtl 1876a: 460, 1901: 381; Wichmann 1927b: 353. **(ds)** Acloque 1896; Bangsholt 1975: 95; Barthe 1896; Bedel 1885b; Bejer-Petersen & Jorum 1977: 22; Borchert 1951; Brakman 1966b: 205; Bukowsky 1930; Calwer 1884, 1893; Eder 1934; Endrodi 1958b; Escalera 1919; Escherich 1932b; Fowler 1891; Fuchs 1905a; Gemminger & Harold 1872: 2687; Gozis 1875: 180; Grill 1895: 312; Grune 1979: 97; Hagedorn 1903a, 1910d: 66; Hansen, V. 1939, 1956, 1964: 230; Hellen 1947; Henschel 1895a: 188; Heyden 1876: 301, 1879: 140; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 713; Horion 1951; Jazentkovsky 1912: 292; Karpinski 1933b: 30, 1948b: 231; Karpinski & Strawinski 1948: 156; Karpinen 1964: 461; Keler 1925b: 275; Kersten 1933: 70, 75; Kestercanek 1881a: 12; Klefbeck & Sjöberg 1960: 230; Kleine 1912a: 268, 1913a: 36, 1913b: 135, 1932a: 302, 1934a: 155; Kloft & Hinks 1945: 218; Knotek 1892a: 38, 1894a: 559; Koltze 1901: 154; Kontkanen 1932: 63; Kozikowsky 1921: 181; Kraatz 1869: 59; Kurenzov 1934a: 50, 1935c: 189; Lacordaire 1866: 382; Langhoffer 1915b: 158; Leclercq 1971; Lindemann 1884b: 264; Linder 1953: 71; Lomnicki 1913b: 148; Lovendal 1889a: 271, 1890c:

206; Lucht 1987: 277; Lundberg 1988; Marivea 1961: 141; Matthews & Fowler 1883: 42; Munster 1928: 291; Negru 1966b: 401; Nosek 1934: 226–230, 1954: 214; Nunberg 1928b: 88, 111, 1954: 65, 1960b: 157; Nusslin 1898: 275; Palm 1954b: 28, 1959: 32, 60; Perris 1876a: 256, 1877a: 416; Pfeffer 1924b: 471, 1930b: 119, 1931b: 74, 1936: 90, 1989a: 59; Pfeffer & Prihoda 1950: 115–126; Pittioni 1943: 176; Postner 1974: 427; Rapp 1934: 735; Redtenbacher 1874: 381; Reitter 1888b: 280, 1894a: 88, 1916: 297; Rinne 1961; Roubal 1941: 266; Saalas 1930: 118, 1931: 67; Sahlberg 1900: 106; Sainte-Claire & Mequignon 1938: 446; Schaufuss 1915: 1240; Schaum 1859: 96, 1862: 101; Schedl 1971d: 432, 1980a: 21; Scheerpeltz & Winkler 1930: 258; Schilsky 1891: 157, 1909: 189; Seidlitz 1891a: 567, 1891b: 612; Sharp & Fowler 1893: 34; Sokanovskii 1960; Stark 1926a: 335, 1926b: 103, 1926j: 126, 1927b: 89; 1931d: 547, 1952: 315; Stein 1868: 114; Stein & Weise 1877: 165; Strauch 1861: 122; Tredl 1907: 18; Wachtl 1876a: 460; West 1938: 184; Westhoff 1882: 240; Wichmann 1927a: 71–72; Zinovjev 1955: 187. (tx) Acloque 1896; Balachowsky 1949a: 189; Barbey 1901: 27, 103; Bedel 1888b; Beffa 1961; Dombrowsky 1887, 1888; Eggers 1910f, 1942c: 28; Eichhoff 1864a: 401, 1864b: 41, 1868d: 419, 1878b: 292, 1881a: 52, 265, 1883a: 115, 140; Endrodi 1957b; Fauvel 1889; Ferrari 1867a: 28, 1867b: 114; Fleischer 1927; Formanek 1907: 50; Gebien 1907: 197; Grune 1979: 96–97; Hagedorn 1910a: 96; Hansen, V. 1956, 1964: 461; Henschel 1895a: 188; Hopkins 1915b: 43; Karpinski & Strawinski 1948: 156; Knotek 1892a: 38; Kuhnt 1913: 1059; Lacordaire 1866: 382; Lindemann 1875a: 141, 1881a: 238; Lovendal 1890c: 206, 1898: 180; Lucht 1987: 277; Lundberg 1988; Negru 1966b: 401; Nunberg 1927b: 29, 1954: 65; Nusslin 1911a: 60, 89, 338, 1912b: 99; Perris 1855: 78; Peyerimhoff 1919: 253; Pfeffer 1932b: 22, 1942a: 18, 1955a: 160; Portevin 1935: 332; Postner 1974: 427; Redtenbacher 1874: 381; Reitter 1887b: 197, 1889d: 271, 1890: 175, 1894a: 88, 1913a: 91, 1916: 297; Rhumbler 1922: 331, 1927: 350; Rupertsberger 1880: 231; Saalas 1914: 304–306; Schedl 1934f: 1642, 1980a: 21; Seidlitz 1891a: 567, 1891b: 612; Sokanovskii 1960: 675; Spessivtsev 1913a: 94, 1922a: 474, 1931: 53; Stark 1952: 315; Stresemann et al. 1986: 352; Taschenberg 1901: 109. (ms) Eichhoff 1868d: 419; Escherich 1932b; Koch 1977: 27; Reitter 1889d: 271; Rhumbler 1927: 350; Schimitschek 1930b: 407.

sepicola Lovendal 1889b: 25, 69. Syntypes, sex?; Denmark; not located. Synonymy: Reitter 1890: 175.

References: (ds) Lovendal 1889a: 171, 1890c: 207. (tx) Hopkins 1914: 124; Lovendal 1889a: 171, 1889b: 25, 69, 1890c: 207; Nusslin 1912: 99; Reitter 1889d: 271, 1890: 175. (ms) Reitter 1889d: 271.

decipiens (LeConte) 1878: 624 (*Xylocleptes*). Holotype ♀; Detroit, Michigan; MCZ, Cambridge.

Figures: Bright 1976d: 203, 211 (adult), Hopkins 1915c: pl. 2, fig. 25 (antenna).

Distribution: North America (Ontario, Quebec in Canada/ Iowa, Kansas, Kentucky, Maine, Massachusetts, Michigan, Minnesota, Mississippi, New Jersey, New York, Pennsylvania, Virginia, West Virginia in USA).

Hosts: *Acer rubrum*, *A. saccharinum*, *A. sp.*, *Hamamelis virginiana*, *Rhus typhina*, *Salix sp.*

References: (cn) Baker, W. L. 1972: 254; Blackman 1950; Doane et al. 1936; Lindquist, O. H. & Syme 1981: 66; Swaine 1918a: 133. (ce) Deyrup 1981a; Felt 1906: 460, 715. (hb) Baker, W. L. 1972: 254; Beal & Massey 1945: 161; Blackman 1922b: 120, 1950; Bright 1976d: 123; Chamberlin 1939: 469; Chittenden 1893a: 394; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Drooz 1985: 361; Felt 1906: 460; Swaine 1918a: 133; Wood, S. L. 1982b: 707. (ds) Anonymous 1926c: 520; Atkinson et al. 1991: 159; Beal & Massey 1945: 161; Beaulne 1941, 1956; Blackman 1922b: 120, 1950; Blatchley & Leng 1916: 608; Bright 1976d: 123; Chamberlin 1939: 469; Deyrup 1981b: 6; Deyrup & Atkinson 1987a: 65; Dodge 1938: 16, 56; Drooz 1985: 361; Hagedorn 1910d: 63; Henshaw 1882: 269, 1885: 148; Hubbard & Schwarz 1878a: 666, 1878b: 624; Kleine 1913b: 132, 1914b: 394, 1934a: 153; Knull 1932: 67; Leng 1920: 342; Leonard 1928: 520; Lindquist, O. H. & Syme 1981: 66; Lintner 1896: 270; Schwarz 1886: 42; Swaine 1909: 159; Ulke 1902: 56; Weber, B. C. & McPherson 1991: 46; Wood, S. L. 1982b: 707. (tx) Beal & Massey 1945: 161; Blackman 1922b: 120; Blatchley & Leng 1916: 608; Bright 1976d: 123, 203, 211; Chamberlin 1939: 469; Dodge 1938: 16, 56; Hagedorn 1910a: 107; Hopkins 1915b: 8, fig. 25; LeConte 1878: 624; Lindquist, O. H. & Syme 1981: 66; Schwarz 1886: 42; Swaine 1909: 159, 1918a: 133; Wood, S. L. 1982b: 707–708.

kabei Murayama 1955: 87, 91. Syntypes 5 ♂, 10 ♀; Shiraito, Kumamoto pref., Japan; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan).

Hosts: *Rhus silvestris*.

References: (ds) Murayama 1955: 87, 91. (tx) Murayama 1955: 87, 91.

Genus *Taphrorychus* Eichhoff

TAPHRORYCHUS EICHHOFF 1878: 49, 204. Type-species: *Bostrichus bicolor* Herbst, subsequent designation by Hopkins 1914: 130.

Saliciphilus Sokanovskii 1954: 17, 20. Type-species: *Hypothenemus machnovskii* Sokanovskii, original designation. Synonymy: Wood 1984: 228.

References: **(tx)** Schedl 1964n: 308; Sokanovskii 1954: 17, 20.

Pseudopocilips Murayama 1957c: 614. Type-species: *Pseudopocilips mikunigamensis* Murayama, original designation. Synonymy: Wood 1983a: 650.

References: **(tx)** Murayama 1957c: 614; Schedl 1962p: 205; Wood 1983a: 650.

Taphroterus Schedl 1965a: 341. Type-species: *Taphroterus prinitus* Schedl, monobasic. Synonymy: Wood 1984b: 228.

References: **(tx)** Schedl 1965a: 341; Wood, S. L. 1984b: 228.

Taphrocoetss Pfeffer 1987: 22. Type-species: *Taphrorychus hirtellus* Eichhoff, original designation. Synonymy: Wood 1992:(in press).

References: **(tx)** Pfeffer 1987: 22; Wood, S. L. 1992:(in press).

Keys: Balachowsky 1949a: 193; Pfeffer 1962: 241; Reitter 1913a: 94.

References: **(hb)** Wood, S. L. 1986a: 74. **(ds)** Wood, S. L. 1986a: 74. **(tx)** Balachowsky 1949a: 193; Choo 1983: 79; Eichhoff 1878b: 49, 204; Hopkins 1914: 130–132, 1915b: 9; Karaman 1972: 133; Niisima 1917: 11; Pfeffer 1962: 254, 1985b; Reitter 1913a: 92, 94–97; Schedl 1938a: 158, 1947a: 43, 1964p: 308; Scheerpeltz & Winkler 1930: 258; Schimitschek 1937: 50–51; Sokanovskii 1954: 18, 21; Spessivtsev 1931: 39; Wood, S. L. 1986a: 74.

alni Pfeffer 1940a: 53. Syntypes ♂ ♀; France: Agay (Gallia merid.), Campo Doro ad urbem Ajaccio (Corsica); Pfeffer Collection.

Distribution: Europe (Corsica/ France).

Hosts: *Alnus glutinosa*.

References: **(bv)** Grune 1979: 127. **(ds)** Grune 1979: 127; Lucht 1987: 277; Pfeffer 1947d: 126–127, 1962: 245; Postner 1974: 440. **(tx)** Balachowsky 1949a: 196; Grune 1979: 127; Lucht 1987: 277; Pfeffer 1940a: 53–54, 1955a: 204, 1962: 242, 245; Postner 1974: 440.

betulae Schedl 1974a: 87. Holotype ♂; Pakistan, Jabba (Swat); Commonwealth Institute of Biological Control, Substation, Rawalpindi.

Distribution: Asia (Pakistan).

Hosts: *Betula* sp.

References: **(tx)** Schedl 1974a: 87, 1979c: 37.

bicolor (Herbst) 1793: 116 (*Bostrichus*). Syntypes, sex?; Wien, Austria; not located.

Figures: Grune 1979: 126, Pfeffer 1989a: pl. 13, Postner 1974: 439, Reisch 1966b: 175.

Distribution: Asia (Turkey), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ France/ Germany/ Hungary/ Italy/ Netherlands/ Norway/ Poland/ Romania/ Sicily/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Fagus orientalis*, *F. silvatica*.

Notes: (3) Ferrari 1867: 28 (aberration named as var. *Dryocoetes tristiculus*, no status).

References: **(ay)** Escherich 1923b: 483, 510; Feytaud 1950a; Nusslin 1911a: 60, 254, 338; Sedlacek 1902b: 244. **(bv)** Grune 1979: 127; Kohnle et al. 1987; Tragardh 1930b: 103. **(cn)** Barbey 1925: 510; Chorbadzhievo 1929; Eckstein 1926: 579; Escherich 1923b: 483, 510; Feytaud 1950a; Grandi 1951; Herlein 1878; Kobakhidze 1960: 1853; Kovacevic 1957: 69; Marcu 1926c: 65; Nosek 1951: 107, 1952b: 96; Nusslin 1913: 283; Pierce, W. D. 1917: 40; Reisch 1966a, 1966b; Rhumbler 1922: 326, 1927: 342; Schimitschek 1937c: 55, 1944: 184, 1952c: 60, 1955a: 139, 1955c: 87; Schonherr & Kraurwurst 1979; Schwerdtfeger 1944a: 174, 1957a: 182; Tomic 1957: 207–210; Trappen 1935: 142; Wachtl 1901: 381; Weber 1926: 579; Wichmann 1927b: 361. **(ce)** Adeli 1964; Apel 1983; Baert & Maelfait 1977; Balazy & Michalski 1964b; Balazy et al. 1977; Belanowskii 1930; Devdariani 1973; Donisthorpe 1924; Elliot & Morley 1907; Fleischer 1911; Györfi 1941b, 1952b; Heqvist 1963: 153; Jamnický 1957b: 20; Kangas 1946b: 41; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1980a, 1980b, 1983; Kielczewski & Wisniewski 1978; Kleine 1908c: 214, 1909a: 49, 77, 1944: 73; Kobakhidze 1960; Meyer 1918: 178; Michalski & Ratajczak 1989; Nosek 1951: 107, 1952b: 96; Novak, P. 1952: 416; Numberg 1930: 202; Nusslin 1927: 342; Perris 1862: 189; Pfeffer 1923a: 332, 1928b: 9; Ratzburg 1869a: 176; Reiche 1966; Rondani 1873: 139, 1876: 62; Roubal 1934b: 178; Ruhm 1956b: 4; Schimitschek 1930a: 326, 1955a: 139; Schonherr & Krautwurst 1979; Schwerdtfeger 1944a: 174, 1957a: 182; Sedlacek 1935a: 162; Thompson, W. R. 1943: 114; Tudor 1969: 34; Wichmann 1957c: 66. **(hb)** Adeli 1964; Altum 1881c: 309; Apel 1983; Barbey 1901: 24, 79, 1925: 510; Budge 1949; Chorbadzhievo 1929; Dombrowsky 1887, 1892; Eckstein 1889, 1926: 579; Eichhoff 1881a: 47, 203; Escherich 1923b: 483, 510; Feytaud 1950a; Fuchs 1904a; Girard 1873; Grandi 1951; Györfi 1957; Hagedorn 1903a; Henschel 1876a: 203, 238, 1895a: 173; Karpinski & Strawinski 1948: 156; Karsch 1883: 142; Knotek 1894a: 558; Lengerken 1939: 66, 1954: 87; Lmardoni & Leonardi 1889: 459; Masutti 1964; Munro 1926: 66; Nordlinger 1855: 185, 1856: 25, 1869: 233; Nusslin 1898: 281, 1906b: 14, 1913: 283, 1927: 342; Palm 1953a: 14, 1959: 351; Pfeffer 1942a: 6, 1989a: 61; Postner 1974: 440; Ratzburg 1837: 161, 1839: 165, 196; Rey 1892a: 18; Rhumbler 1922: 326, 1927: 342; Rupertsberger 1880: 230; Schimitschek 1930a: 326, 1944: 184, 1955a: 139; Schonherr & Krautwurst 1979; Schwerdtfeger 1944a: 174, 1957a: 182, 1981: 188; Sedlacek 1935a: 162; Stark 1952: 320; Taschenberg 1880: 232; Tragardh 1930b: 103, 1930c: 478, 1931: 60; Tschorbadjiev 1929: 171; Wachtl 1876a: 456, 1901: 381; Weber 1926: 579; Wichmann 1912b: 138, 1927b: 361. **(ds)** Aclouque 1896; Adeli 1964; Allen, A. 1951d; Ammann & Knabl 1923; Audras

- & Schaefer 1957; Bau 1888; Bedel 1888b; Bejer-Petersen & Jorum 1977: 22; Bielz 1851, 1887; Bielz & Hampe 1853; Blanchere & Robert 1889; Borchert 1951; Brakman 1966a: 52, 1966b: 205; Brancsik 1871; Browne 1980d: 493; Buck 1955b: 191; Buresh & Lazarov 1956; Butovitsch & Heqvist 1947; Calwer 1884, 1893; Champion 1870: 107, 1894; Chapuis & Candezze 1853; Choo 1983: 79; Choo & Woo 1985: 165; Chorbadzhievo 1924d, 1929; Cooter 1971; Debatisse 1945; Eggers 1904; Endrodi 1958a, 1958b, 1981: 184; Escherich 1923b: 483, 510, 1932b; Fauvel 1885; Fedorov 1930; Fleischer 1888; Fowler 1891; Fricken 1889: 351; Fuchs 1904a, 1905a; Gaubil 1849: 126; Gemminger & Harold 1872: 2687; Gozis 1875: 80; Gredler 1886: 375; Grill 1895: 311; Grune 1979: 127; Gussmann 1919; Gyofai 1941b; Hagedorn 1903a, 1910a: 63; Hansen, V. 1939, 1956, 1964: 461; Hellen 1947; Henschel 1895a: 173; Heyden 1876: 301; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 712; Horion 1951; Jazentkovsky 1912: 291; Joly 1960; Kangas 1946a: 35; Karpinski 1926: 82, 1948b: 231; Karpinski & Strawinski 1948: 156; Keler 1925b: 275; Kersten 1933: 76; Kestercanek 1881a: 12; Klefbeck & Sjoberg 1960: 230; Kleine 1912a: 263, 268, 1913a: 35, 1913b: 133, 1934a: 153; Kloft & Hinks 1945: 218; Knotek 1892a: 37, 1894a: 558; Koca 1900: 116, 1905: 192; Kolenati 1846: 40; Koltze 1901: 153; Kolubajiv 1934: 65; Koschitsky 1900: 83; Kovacevic 1957: 69; Kraatz 1869: 59; Kurir 1947c: 30; Langhoffer 1915c: 158; Leclercq 1971; Lokaj 1868: 64; Lomnicki 1886a: 242, 1913b: 148; Lucht 1987: 277; Lunardoni & Leonardi 1889: 459; Mahler 1987: 232; Marcu 1926c: 65; Matthews & Fowler 1883: 42; Murayama 1937a: 2, 1937b: 371, 1948: 6; Negri 1966b: 403, 1968a: 456; Novak, P. 1952: 416, 1964; Numberg 1928b: 88, 112, 1954: 67; Nusslin 1898: 281; Orest 1926c: 65; Palm 1953a: 14, 1955a: 142, 1959: 26, 32; Perris 1876a: 255, 1877a: 415; Pfeffer 1924b: 472, 1928b: 9, 1931b: 74, 1936: 90, 1947d: 127, 1950b: 76, 1962: 245, 1989a: 61; Pierce, W. D. 1917: 40; Pittioni 1943: 175; Postner 1974: 440; Ragusa 1924: 117; Rapp 1934: 733; Ratzeburg 1837: 161, 1839: 165, 196; Redtenbacher 1858: 836, 1874: 381; Reitter 1869b: 155, 1894a: 86, 1916: 299; Roubal 1935b: 73, 1941: 267; Sainte-Claire 1914: 474; Sainte-Claire & Mequignon 1938: 447; Schaufuss 1915: 1244; Schaum 1859: 96, 1862: 101; Schedl 1971d: 429, 1980a: 24; Scheerpeltz & Winkler 1930: 258; Schilsky 1909: 189; Schiodte 1873: 103; Schneider & Leder 1977: 55; Schulze 1913: 59; Schwerdtfeger 1981: 188; Seidlitz 1891a: 566, 1891b: 612; Sharp & Fowler 1893: 34; Stark 1927b: 89, 1952: 320; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 445; Strum 1843: 230; Tredl 1907: 17; Tschorbadjiev 1929: 171; Wachtl 1875a: 456; Wanka 1908: 231; Westhoff 1882: 238; Wichmann 1924: 15, 1927a: 72, (tx) Acloque 1896; Altman 1844; Apel 1983; Bach 1854; Balachowsky 1949a: 195; Barbey 1901: 24, 79; Bedel 1888b; Bertolini 1872; Brancsik 1871; Chapuis & Candezze 1853; Choo 1983: 79; Chorbadzhievo 1924d; Dombrowsky 1887, 1892; Donisthorpe 1931: 122; Duffy 1953; Eggers 1908a: 121; Eichhoff 1864b: 38, 1872a: 137, 1877c: 386–392, 1878b: 204, 1881a: 47, 203, 1883a: 111, 135; Endrodi 1957b; Escherich 1923b: 483, 510; Fauvel 1885; Ferrari 1867a: 28, 31, 1867b: 114; Fleischer 1905, 1927; Formanek 1907: 49; Fricken 1889: 351; Girard 1873; Grune 1979: 126–127; Hagedorn 1910a: 108; Hansen, V. 1956, 1964: 461; Henschel 1876a: 203, 238, 1895a: 173; Herbst 1793: 116; Hopkins 1914: 130, 132, 1915b: fig. 12; Karpinski & Strawinski 1948: 156; Knotek 1892a: 37; Kuhnt 1913: 1058; Letzner 1891: 376; Lemis 1886: 181; Lovendal 1889b: 54, 1898: 133; Lucas 1920: 627; Lucht 1987: 277; Lunardoni & Leonardi 1889: 459; Murayama 1937b: 371–372; Negri 1966b: 403; Nordlinger 1848: 241, 1856: 25; Numberg 1954: 67; Nusslin 1911a: 60, 254, 338; Panzer 1795a: 289; Pfeffer 1932b: 23, 1940a: 53–54, 1942a: 6, 1955a: 205, 1962: 241, 245, 1989a: pl. 13; Portevin 1935: 334; Postner 1974: 440; Quaschik 1953: 35; Ratzeburg 1837: 161, 1839: 165, 196, 1856b: 60; Redtenbacher 1849b: 26, 1858: 836, 1874: 381; Reisch 1966b: 175; Reitter 1894a: 86, 1913a: 95, 1916: 299; Rhumbler 1922: 326, 1927: 342; Rupertsberger 1880: 230; Schedl 1934f: 1642, 1950d: 17, 1952f: 87, 1980a: 24; Schimitschek 1937c: 55, 1955c: 87; Schlechtendal & Wunshe 1879: 127; Seidlitz 1891a: 566, 1891b: 612; Sokanovskii 1954: 21; Spessivtsev 1922a: 475–476, 491, 1925a: 178, 1931: 60; Stark 1952: 320; Stierlin 1898: 495; Stresemann et al. 1986: 351; Taschenberg 1880: 232. (ms) Escherich 1932b; Lucas 1920: 627. *fuscus* Marsham 1802: 53 (*Ips*). Syntypes, sex?; England; not located. Synonymy: Eichhoff 1878b: 205.
- References: (ds) Ericson & Sandin 1893; Gyllenhal 1813: 360; Pacher 1865: 152; Rye 1868: 187–189; Schaum 1859: 86, 1862: 101; Schilsky 1909: 189; Seidlitz 1872: 396; Stein 1868: 114; Stein & Weise 1877: 164; Stephens 1829a: 145, 1830: 356, 1839: 207; Thomson 1865: 366, 1868: 222. (tx) Balachowsky 1949a: 195; Eichhoff 1878b: 205; Ferrari 1867a: 28; Gyllenhal 1813: 360, 1827: 623; Letzner 1891: 376; Marsham 1802: 53; Redtenbacher 1849a: 359; Schaschl 1854: 133; Seidlitz 1872: 396; Stephens 1829a: 145, 1829b: 12, 1830: 356, 1839: 207; Thomson 1865: 366, 1868: 222.
- siculus* Eggers 1908a: 121. Lectotype ♂; Sicilia (Madonie); USNM, Washington, designated by Anderson & Anderson 1971: 30.
- Notes: (1) Pfeffer 1962: 244 (treated as a subspecies).
- References: (ds) Buresh & Lazarov 1956; Pfeffer 1947d: 127, 1962: 245; Ragusa 1924: 117.

(**tx**) Anderson, W. H. & Anderson 1971: 30; Eggers 1908a: 121; Pfeffer 1940: 53, 1955a: 205, 1962: 244–245; Reitter 1913a: 95–96; Schedl 1934f: 1642.

ceratoniae Peyerimhoff 1926: 388. Syntypes, sex?; Sidi-Madani (massif des Mouzaia) [Algeria]; MNHN, Paris.

Distribution: Africa (Algeria/ Morocco).

Hosts: *Ceratoniae siliquae*.

References: (**hb**) Peyerimhoff 1926: 388. (**ds**) Kleine 1934a: 153; Peyerimhoff 1926: 388; Pfeffer 1935: 158, 1962: 245. (**tx**) Balachowsky 1949a: 194; Eggers 1927d: 120–123; Peyerimhoff 1926: 388; Pfeffer 1962: 241, 245, 1987: 24; Schedl 1934f: 1642.

cribripennis Eggers 1944c: 142. Syntypes, sex?; Algier (Bou-Berak); Eggers Collection, in NHMW, Wien. Synonymy: Pfeffer 1962: 243. Notes: (1) Schedl 1979c: 69 (citation of holotype invalid).

References: (**tx**) Eggers 1944c: 142; Pfeffer 1955a: 205, 1962: 243; Schedl 1979c: 69.

coronatus Eggers 1944c: 141. Holotype ♀; Tunis (El Feidja); Eggers Collection, in NHMW, Wien. Distribution: Africa (Algeria/ Tunisia).

References: (**ds**) Pfeffer 1962: 245. (**tx**) Eggers 1944c: 141; Pfeffer 1962: 245; Schedl 1979c: 64.

dinoderoides (Blandford) 1894d: 97 (*Dryocoetes*). Holotype, sex?; Ichiuchi, Japan; BMNH, London. Distribution: Asia (Japan).

Notes: (1) Murayama 1957c: 623 (to *Taphrorychus*). References: (**ds**) Hagedorn 1910d: 66; Kleine 1913b: 136, 1914b: 258; Murayama 1954b: 202, 1957c: 588. (**tx**) Blandford 1894d: 97; Eggers 1923a: 161; Hagedorn 1910a: 96; Murayama 1954b: 202, 1957c: 588–623; Schedl 1934f: 1643.

heveti (Stebbing) 1908b: 11 (*Dryocoetes*). Syntypes 2, sex?; Kumaun, Naini Tal, U. P., India; FRI, Dehra Dun.

Distribution: Asia (Himachal Pradesh, Uttar Pradesh in India).

Hosts: *Quercus dentata*, *Q. lanuginosa*, *Q. semicarpifolia*.

References: (**ay**) Gardner 1934b: 1–17. (**cn**) Kleine 1932a: 302; Pierce, W. D. 1917: 154; Stebbing 1914: 545. (**ec**) Stebbing 1914: 545. (**hb**) Beeson 1922c: 495–496; Kleine 1932a: 302; Stebbing 1914: 545. (**ds**) Beeson 1922c: 495–496; Kleine 1914b: 270, 1932a: 302, 1934a: 157; Pierce, W. D. 1917: 154; Schedl 1975c: 383. (**tx**) Gardner 1934b: 1–17; Hagedorn 1910a: 96; Stebbing 1908b: 11, 1914: 545.

hirtellus Eichhoff 1878b: 208. Holotype, sex?; Anatolia [Turkey]; IRSNB, Brussels.

Figures: Grune 1979: 124, Pfeffer 1989a: pl. 13.

Distribution: Africa (Algeria), Asia (Turkey), Europe (Bulgaria/ Czechoslovakia/ Hungary/ Romania/ Yugoslavia).

Hosts: *Corylus avellana*, *Fagus orientalis*, *F. sylvatica*, *Quercus cerris*.

References: (**bv**) Grune 1979: 125. (**cn**) Acatay 1943a: 67; Chorbadzhievo 1929; Schimitschek 1944: 183. (**ec**) Nosek 1952: 416, 1959b: 87; Schimitschek 1941a: 305. (**hb**) Acatay 1943a: 67; Chorbadzhievo 1929; Nosek 1959b: 87; Peyerimhoff 1926: 588; Schimitschek 1944: 183; Tschorbadjiev 1929: 171; Wichmann 1912b: 138–139. (**ds**) Buresh & Lazarov 1956; Chorbadzhievo 1929; Endrodi 1958b; Escherich 1932b; Grune 1979: 125; Hagedorn 1910d: 63; Heyden, Reitter, & Weise 1906: 712; Horion 1951; Kleine 1913a: 307, 1913b: 133, 1934a: 114; Lucht 1987: 277; Novak, P. 1952: 416; Peyerimhoff 1926: 388; Pfeffer 1936: 90, 1962: 245, 1989a: 62; Postner 1974: 440; Reitter 1894a: 86; Roubal 1941: 267; Schaufuss 1915: 1244; Schedl 1961b: 185; Tschorbadjiev 1929: 171. (**tx**) Balachowsky 1949a: 194; Eggers 1911a: 122, 1914: 40, 1923b; Eichhoff 1878b: 208; Endrodi 1957a, 1957b; Grune 1979: 124–125; Hagedorn 1910a: 109; Lucht 1987: 277; Pfeffer 1932b: 23, 1955a: 208, 1962: 241, 1965: 63, 1987: 23, 1989a: pl. 13; Postner 1974: 440; Reitter 1894a: 86, 1913a: 95; Schedl 1934f: 1642; Pfeffer 1932b: 23, 1962: 245. (**ms**) Escherich 1932b.

mecedanus Reitter 1913a: 95. Holotype, sex?; Teplitz, Ungarn; NHMB, Budapest. Synonymy: Pfeffer 1965: 63.

References: (**ds**) Buresh & Lazarov 1956; Csiki 1914; Pfeffer 1936: 90; Roubal 1941: 267. (**tx**) Pfeffer 1955a: 208, 1962: 241, 1965: 63, 1987: 23; Reitter 1913a: 95; Schedl 1934f: 1642.

* **immaturus** Schedl 1947a: 43. Holotype, sex?; Baltic Bernstein; Geologisch-Palaeontologische Institut Albertus Universitat, Königsberg. Distribution: Europe (fossil in Baltic amber). References: (**tx**) Schedl 1947a: 43.

leukoranus Reitter 1913a: 96. Syntypes, sex?; Talysch im Kaspischen Meergebiet bei Lyrik und Lenkoran; NHMB, Budapest.

Distribution: Europe (Caucasus in W USSR).

Hosts: *Acer* sp.

References: (**hb**) Stark 1952: 320. (**ds**) Kleine 1934a: 114; Pfeffer 1935: 158, 1962: 245; Stark 1952: 320. (**tx**) Pfeffer 1955a: 204, 1962: 245; Reitter 1913a: 95–96; Schedl 1934f: 1642; Sokanovskii 1954: 21; Stark 1952: 326.

machnovskii (Sokanovskii) 1954: 17 (*Hypothenemus*). Syntypes, sex?; USSR [not seen]; Sokanovskii Collection.

Distribution: Asia (E USSR).

Hosts: *Salix* sp.

Notes: (3) Sokanovskii 1954: 17, 20 (treated in *Saliciphilus*).

References: (**ds**) Kadyrov 1988: 43, 45, 1989; Maknovskii 1958(?): 68. (**tx**) Michalski 1969b: 569; Pfeffer 1985b: 141; Schedl 1964m: 308; Sokanovskii 1954: 17, 20, 1958: 39.

mikuniyamensis (Murayama) 1957c: 616 (*Pseudopocillips*). Syntypes 2 ♂, 2 ♀; Mt. Mikuni, Niigata pref., Japan; USNM, Washington.
Distribution: Asia (Japan).

Hosts: *Acer argutum*.

References: (ds) Murayama 1957c: 588. (tx) Murayama 1957c: 588, 616, 619; Schedl 1962p: 205.

minor Eggers 1923b: 137. Syntypes ♂; Sardinia: Italy: Tuscany: Viareggio; Eggers Collection, in NHMW, Wien, and Marchi Collection.
Distribution: Africa (Algeria), Europe (Italy/ Sardinia).

Hosts: *Quercus ilex*.

Notes: (1) Schedl 1979c: 155 (citation of holotype invalid).

References: (bv) Grune 1979: 125. (ds) Grune 1979: 125; Pfeffer 1935: 158, 1947d: 128, 1962: 245; Postner 1974: 440; Schedl 1964a. (tx) Balachowsky 1949a: 194; Eggers 1923b: 137, 1927d: 123; Grune 1979: 125; Pfeffer 1962: 245, 1987: 23; Postner 1974: 440; Schedl 1934f: 1642, 1979c: 155; Sokanovskii 1954: 19.

moestus (Blandford) 1894d: 96 (*Dryocoetes*). Holotype, sex?; Nikko, Japan; BMNH, London.
Distribution: Asia (Japan).

Hosts: *Carpinus laxiflora*.

Notes: (1) Murayama 1957: 623 (to *Taphrorychus*).
References: (ds) Hagedorn 1910d: 67; Kleine 1913b: 136, 1914b: 258; Murayama 1954b: 173, 1957c: 588. (tx) Blandford 1894d: 96; Eggers 1923a: 161; Hagedorn 1910a: 96; Murayama 1954b: 173, 1957c: 588; Schedl 1934f: 1643.

pilosus (Murayama) 1957c: 619 (*Pseudopocillips*). Holotype, sex?; Nagatani, Gihu pref. (Houshu), Japan; USNM, Washington.
Distribution: Asia (Japan).

Hosts: *Fagus crenata*.

Notes: (3) Murayama 1957c: 621 (aberration named as var. *brevipilosus*, no status).

References: (ds) Murayama 1957c: 588. (tx) Murayama 1957c: 588, 619, 621; Schedl 1962p: 205.

primitus (Schedl) 1965a: 341 (*Taphroterus*). Holotype, sex?; Prov. Ha-Tinh, forestiere Huong-son, 150 m; NIMB, Budapest.

Distribution: Asia (Vietnam).

References: (tx) Schedl 1965a: 341, 1979c: 199.

schimitscheki Eggers 1940g: 38. Lectotype, sex?; Kleinasien (Ayuncyk); USNM, Washington, designated by Anderson & Anderson 1971: 29.
Distribution: Asia (W USSR).

References: (cn) Schimitschek 1944: 185, 1952c: 60. (cc) Schimitschek 1941a: 305. (hb) Schimitschek 1944: 185. (ds) Pfeffer 1962: 245. (tx) Anderson, W. H. & Anderson 1971: 29; Eggers 1940g: 38; Pfeffer 1962: 245; Schedl 1979c: 221.

striatus Nobuchi 1966e: 52. Holotype, sex?; Mt. Homan, Fukuoka pref., Japan; Nobuchi Collection, Ibaraki.

Figures: Nobuchi 1966e: pls. 1–2 (adult).

Distribution: Asia (Japan).

References: (tx) Nobuchi 1966e: 52, pl. 1–2.

taradakensis (Murayama) 1957c: 618 (*Pseudopocillips*). Holotype, sex?; Taradake, Nagasaki pref., Japan; USNM, Washington.
Distribution: Asia (Japan).

Hosts: *Cinnamomum camphora*, *Machilus thunbergii*.

References: (ds) Murayama 1957c: 588. (tx) Murayama 1957c: 588, 618.

villifrons (Dufour) 1843: 91 (*Bostrichus*). Syntypes, sex?; France; not located.

Figures: Balachowsky 1949a: 184, Donisthorpe 1931: pl. H, Grune 1979: 126, Pfeffer 1989a: pl. 13.
Distribution: Africa (Algeria/ Egypt/ Libya/ Morocco/ Tunisia), Asia (Turkey/ Armenia in W USSR), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ England/ France/ Hungary/ Italy/ Portugal/ Spain/ W USSR/ Yugoslavia).

Hosts: *Caprinus betulus*, *Castanea vesca*, *Fagus orientalis*, *Quercus afares*, *Q. cerris*, *Q. mirbeckii*, *Q. pedunculata*, *Q. pubescens*, *Q. robur*, *Ulmus* spp.

Notes: (3) Pfeffer 1940a: 53 (aberration named as var. *roubali*, no status), Sokanovskii 1958: 39 (aberration named as var. *splendens*, no status).

References: (ay) Schwerdtfeger 1929: 384. (bv) Grune 1979: 127. (cn) Anonymous 1979p; Hoffmann 1934: 93; Nusslin 1913: 283; Pierce, W. D. 1917: 40; Rhumbler 1922: 326, 1927: 342; Schwerdtfeger 1929: 384; Wachtl 1901: 381. (cc) Donisthorpe 1924: 118, 1940: 6; Espanol 1967a; Kleine 1908c: 214, 1944: 72; Krivolutskaia 1974; Nikitsky 1978; Nusslin 1927: 342; Schwerdtfeger 1929: 384. (hb) Bukowsky 1930; Koch 1909: 333; Lengerken 1939: 66, 1954: 87; Nusslin 1913: 283, 1927: 342; Paramonov 1934: 114; Peyerimhoff 1919: 256; Postner 1974: 440; Rhumbler 1922: 326, 1927: 342; Spessivtsev 1912: 271; Stark 1952: 320; Wachtl 1901: 381. (ds) Aclouque 1896; Allen, A. 1954; Anonymous 1979p; Audras & Schaefer 1957; Bedel 1888b: 399, 415; Brakman 1966b: 205; Bukowsky 1930; Buresh & Lazarov 1956; Chorbadzhievo 1924d; Donisthorpe 1931: 122; Endrodi 1958b; Escalera 1919; Fedorov 1930; Grune 1979: 127; Hagedorn 1910d: 63; Heyden, Reitter, & Weise 1891: 673, 1906: 712; Hoffmann 1934: 93, 1936: 41; Holdhaus 1912: 454; Horion 1951; Kleine 1913a: 35, 1913b: 133, 1914a: 15–16, 1934a: 114; Langhoffer 1915c: 158; Leclercq 1971; Lucht 1987: 277; Negrú 1968a: 456; Normand 1937: 263; Peyerimhoff 1919: 256; Pfeffer 1962: 245, 1989a: 61; Pierce, W. D. 1917: 40; Pittioni 1943: 176; Pjatnitskii 1930a: 165; Postner 1974: 440; Reitter 1894a: 86, 1916: 299; Roubal 1941: 267; Sainte-Claire & Mequignon 1938: 447; Schaufuss 1915: 1244; Schedl 1959h: 100, 1961b: 185, 1964a, 1971d: 432, 1980a: 24; Schilsky 1909: 189; Stark

1927b: 89, 1952: 320; Tredl 1907: 17. **(tx)** Acloque 1896; Balachowsky 1949a: 194; Bedel 1888b; Chorbadzhievo 1924d; Duffy 1953; Dufour 1843: 91; Eggers 1908a: 121, 1911a: 123; Endrodi 1957b; Fleischer 1927; Grune 1979: 126–127; Hagedorn 1910a: 109; Lucht 1987: 277; Pfeffer 1940a: 53, 1955a: 207, 1962: 241, 245, 1989a: pl. 13; Pjatnitskii 1932: 295–302; Portevin 1935: 334; Postner 1974: 440; Reitter 1894a: 86, 1913a: 95–96, 1916: 299; Rey 1892b: 30; Rhumbler 1922: 326, 1927: 342; Schedl 1934f: 1642, 1959h: 100, 1980a: 24; Schmidt, G. 1980: 15; Sokanovskii 1955: 39; Spessivtsev 1912: 271–272, 1931: 60; Stark 1952: 320.

buhnerineqi Kolenati 1846: 39 (*Bostrichus*). Syn-types, sex?; Iberia et Cancaso; not located. Synonymy: Eichhoff 1878b: 207; Eggers 1911a: 123.

References: **(cn)** Acatay 1943a: 66; Chorbadzhievo 1929; Schimitschek 1944: 184, 1952c: 60. **(ce)** Schimitschek 1941a: 305. **(hb)** Acatay 1943a: 66; Barbey 1901: 24, 79; Bargmann 1906; Chorbadzhievo 1929; Dombrowsky 1887, 1892; Eichhoff 1881a: 47, 205; Henschel 1895a: 173; Schimitschek 1944: 184; Tschorbadjiev 1929: 171. **(ds)** Arnoldi et al. 1955: 703; Buresh & Lazarov 1956; Chorbadzhievo 1929; Fauvel 1885; Hagedorn 1910d: 63; Henschel 1895a: 173; Heyden 1898: 77; Heyden, Reitter, & Weise 1883: 182, 1906: 712; Kleine 1913b: 133, 1934a: 153; Kolenati 1846: 39; Lacordaire 1866: 383; Oliveira 1887: 328; Pfeffer 1936: 90; Pittioni 1943: 176; Reitter 1888b: 280, 1894a: 86; Rye 1874: 229; Schaufuss 1915: 1244; Schilsky 1891: 157, 1909: 189; Schneider & Leder 1977: 54; Sharp & Fowler 1893: 34; Stein 1868: 114; Stein & Weise 1877: 164; Tschorbadjiev 1929: 171. **(tx)** Balachowsky 1949a: 195; Barbey 1901: 24, 79; Dombrowsky 1887, 1892; Eggers 1908a: 121, 1911a: 123, 1940g: 38; Eichhoff 1878b: 204, 207, 1881a: 47, 205, 1883a: 111, 135; Fauvel 1885, 1887; Ferrari 1967b: 114; Hagedorn 1910a: 108; Harold 1875; Henschel 1895a: 173; Kolenati 1846: 39; Lacordaire 1866: 383; Pfeffer 1940a: 53; Reitter 1894a: 86, 1913a: 95–96; Schedl 1934f: 1642; Sokanovskii 1954: 21.

capronatus Perris 1866: 193 (*Dryocoetes*). Syn-types, sex?; south France; MNHN, Paris. Synonymy: Eichhoff 1878b: 207.

References: **(ec)** Grossmann 1931a. **(hb)** Perris 1876b: 195. **(ds)** Cozins 1875: 80; Perris 1876a: 253, 255, 1877a: 413, 415; Schilsky 1909: 189; Stein 1868: 114; Stein & Weise 1877: 164. **(tx)** Balachowsky 1949a: 195; Eichhoff 1868d: 419, 1876: 378–379, 1878b: 207; Ferrari 1867a: 28, 1867b: 114; Perris 1866: 193, 1877a: 413.

Genus *Dendrographus* Schedl

DENDROGRAPHIUS SCHEDL 1964m: 310. Type-species: *Pelicerus pygmaeus* Eggers, original designation.

Protopityophthorus Schedl 1973f: 73. Type-species: *Protopityophthorus durus* Schedl = *Pelicerus pygmaeus* Eggers, original designation. Synonymy: Wood 1984b: 225.

References: **(tx)** Schedl 1973f: 73; Wood, S. L. 1984b: 225.

References: **(hb)** Wood, S. L. 1986a: 74. **(ds)** Wood, S. L. 1986a: 74. **(tx)** Schedl 1964m: 310; Wood, S. L. 1986a: 74.

pygmaeus (Eggers) 1923: 218 (*Pelicerus*). Syn-types, sex?; Kaiserin Augustafluss-Gebeit auf New Guinea; MNB, Berlin, and Eggers Collection, 2 Eggers syntypes in NHMW, Wien.

Figures: Schedl 1973f: 70 (adult).

Distribution: New Guinea.

References: **(tx)** Eggers 1923: 218; Schedl 1940b: 438; 1964m: 310, 1979c: 207.

durus Schedl 1973f: 73 (*Protopityophthorus*).

Holotype ♀; Biniguni, Gwariu River, M. Bay Distr., New Guinea; AMNH, New York. Synonymy: Wood 1984b: 225.

References: **(tx)** Schedl 1973f: 70, 73, 1979c: 86; Wood, S. L. 1984b: 225.

Genus *Peridryocoetes* Wood

PERIDRYOCOETES WOOD 1984b: 230. Type-species: *Ozodendron nitens* Schedl, original designation.

Notes: (1) The name *Peridryocoetes* was used as a nomen nudum by Schedl from 1964 to 1979.

References: **(hb)** Wood, S. L. 1986a: 74. **(ds)** Wood, S. L. 1986a: 74. **(tx)** Wood, S. L. 1984b: 230, 1986a: 74.

crassus (Eggers) 1927b: 397 (*Dryocoetes*). Holotype, sex?; Sumatra (Bandar Baroe); Eggers Collection, in NHMW, Wien.

Distribution: Indonesia (Sumatra).

Notes: (1) Wood examined the holotype and assigned this species to *Peridryocoetes* (Wood 1983 notes, p. 16).

References: **(ds)** Murayama 1957c: 607. **(tx)** Eggers 1927b: 397; Murayama 1957c: 607; Schedl 1953b: 127, 1979c: 68.

minutissimus (Schedl) 1953b: 127 (*Dryocoetes*).

Lectotype, sex?; Saigon, Indo-China; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 156.

Distribution: Asia (Vietnam).

Notes: (1) Schedl 1979c: 156 (to *Peridryocoetes*). References: **(ds)** Murayama 1957c: 608; Schedl 1965a: 338. **(tx)** Murayama 1957c: 608; Schedl 1953b: 127, 1979c: 156; Wood, S. L. 1984b: 230.

nitens (Schedl) 1964g: 243 (*Ozodendron*). Holotype, sex?; Sarawak, Semeagoh; BMNH, London.

Distribution: Indonesia (Sarawak in Borneo).

Hosts: *Garcinia* sp.

References: (ds) Browne 1972b: 20, 1980a: 371. (tx) Schedl 1964g: 243; Schedl 1979c: 168; Wood, S. L. 1984b: 230, 1986a: 74.

peliciformis (Schedl) 1936j: 29 (*Xyleborus*). Holotype ♀; south east Borneo; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Borneo).

Notes: (1) Wood 1984b: 230 (to *Peridryocoetes*).

References: (ds) Murayama 1957c: 608; Schedl 1936j: 29. (tx) Murayama 1957c: 608; Schedl 1936j: 29, 1953c: 291, 1979c: 187; Wood, S. L. 1984b: 230.

queenslandi Schedl 1972a: 146. Holotype ♀; Queensland: Atherton; Queensland Museum, Brisbane.

Distribution: Australia (Queensland).

Hosts: *Flindersia pubescens* (feeding on gall on host).

Notes: (1) Wood 1984b: 230 (to *Peridryocoetes*).

References: (tx) Schedl 1972a: 146, 1979c: 209; Wood, S. L. 1984b: 230.

squamipennis Schedl 1979g: 101. Holotype, sex?; New Guinea: SE, Kiunga; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1979g: 101.

Genus *Cyrtogenius* Strohmeier

CYRTOGENIUS STROHMEIER 1910e: 127. Type-species: *Cyrtogenius bicolor* Strohmeier, monobasic.

Carposinus Hopkins 1915b: 9, 47. Type-species: *Carposinus pini* Hopkins = *Dryocoetes luteus* Blandford, original designation. Synonymy: Schedl 1952k: 161.

References: (tx) Browne 1961c: 85; Hopkins 1915b: 9, 47; Schedl 1952k: 161, 1957d: 12, 1961k: 650; Wood, S. L. 1960a: 14, 44.

Orosiotes Niisima 1917: 1. Type-species: *Orosiotes kumatoensis* Niisima, monobasic. Synonymy: Eggers 1939c: 121.

References: (tx) Eggers 1939c: 121; Niisima 1917: 1–4; Schedl 1952k: 161; Wood, S. L. 1960a: 44.

Metahylastes Eggers 1922b: 165. Type-species: *Metahylastes africanus* Eggers, monobasic. Synonymy: Eggers 1927a: 197.

References: (tx) Eggers 1922b: 165–166, 1927a: 197; Schedl 1961k: 650.

Pelicerus Eggers 1923: 216. Type-species: *Lepicerus nitidus* Hagedorn, original designation. Synonymy: Schedl 1962n: 698.

References: (tx) Beeson 1938: 289; Eggers 1923: 216, 1939c: 121; Schedl 1957d: 12, 1961k: 651, 1961n: 698.

Eulepiops Schedl 1939e: 344. Type-species: *Eulepiops glaber* Schedl, original designation. Synonymy: Wood 1984b: 224.

References: (tx) Browne 1961c: 37; Schedl 1939e: 344; Wood, S. L. 1984b: 244.

Ozodendron Schedl 1957d: 13. Type-species: *Pelicerus grandis* Beeson, monobasic. Synonymy: Wood 1984b: 224.

References: (tx) Schedl 1957d: 13, 1964g: 243; Wood, S. L. 1984b: 224.

Mimidendruh Schedl 1957d: 68. Type-species: *Mimidendruh movoliae* Schedl, monobasic. Synonymy: Wood 1984b: 225.

References: (tx) Schedl 1957d: 68, 1961k: 732

Carpophloeus Schedl 1958k: 143. Type-species: *Carpophloeus rugipennis* Schedl, monobasic. Synonymy: Wood 1986a: 74.

References: (tx) Schedl 1958k: 143; Wood, S. L. 1986a: 74.

Taphroborus Nunberg 1961b: 617. Type-species: *Taphroborus vaticae* Nunberg, original designation. Synonymy: Schedl 1961k: 651, Wood 1986a: 74.

References: (tx) Nunberg 1961b: 617; Schedl 1961k: 651; Wood, S. L. 1986a: 74.

Ozodendron Schedl 1964g: 243. Type-species: *Pelicerus grandis* Beeson, monobasic, preoccupied by Schedl 1957. Synonymy: Wood 1984b: 224.

References: (tx) Schedl 1964g: 243; Wood, S. L. 1984b: 224.

Artepityophthorus Schedl 1969e: 157. Type-species: *Artepityophthorus aries* Schedl, monobasic. Synonymy: Wood 1984b: 225.

References: (tx) Schedl 1969e: 157–158; Wood, S. L. 1984b: 225.

Notes: (3) Schedl used the manuscript name in his collection of *Taphrostenoxis* Schedl for *T. tenuis* Schedl, no status.

References: (ay) Nobuchi 1969a: 61. (hb) Wood, S. L. 1986a: 74. (ds) Brimblecombe 1953: 14; Schedl 1966b: 30; Wood, S. L. 1986a: 74. (tx) Beeson 1938: 289; Browne 1959b: 297; Eggers 1922b: 165, 1927a: 197, 1939c: 121; Hopkins 1914: 120, 132, 1915b: 8, 1915c: 236; Murayama 1930: 22, 1954: 200; Nunberg 1961a: 340–342; Schedl 1934f: 1647, 1952d: 358, 1952k: 161, 1956a: 30, 1957d: 12, 1957e: 865–883, 1958k: 143, 1961k: 650, 1962k: 698–699, 1964m: 305, 1977b: 91; Strohmeier 1910e: 127, 1911: 16; Wood, S. L. 1960a: 14, 44, 1986a: 74.

acuminatus (Schedl) 1975g: 221 (*Eidophelus*). Holotype, sex?; New Guinea, Hans Copper, Wan, Mt. Missim; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1975g: 221, 1979c: 11.

aequalis (Schedl) 1979g: 100 (*Ozodendron*). Holotype, sex?; New Guinea; Bulolo, Morobe District, Upper Manki L. A.; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1979g: 100.

aethiopicus (Eggers) 1927a: 178 (*Dryocoetes*).
Lectotype ♂; Abessinien; USNM, Washington,
designated by Anderson & Anderson 1971: 3.
Distribution: Africa (Ethiopia).
References: (tx) Anderson, W. H. & Anderson
1971: 3; Eggers 1927a: 178–179; Schedl 1961k:
657, 1979c: 13.

affinis (Schedl) 1940b: 439 (*Pelicerus*). Holotype,
sex?; Papua: Kokoda, 1200 ft.; BMNH, London.
Distribution: New Guinea.
References: (bv) Gray, B. 1974c. (hb) Gray, B.
1974c. (tx) Schedl 1940b: 439, 1979c: 14.

africanus (Schreiner) 1882: 246 (*Dryocoetes*). Syn-
types ♂ ♀; Guineae ora Africa; Schedl Collection
in NHMW, Wien.

Figures: Schedl 1961k: 658 (antenna).

Distribution: Africa (Ghana).

Notes: (3) Schedl 1979c: 14 (citation of holotype
invalid).

References: (ds) Hagedorn 1910d: 65. (tx) Eggers
1924: 105, 1928: 174; Hagedorn 1910a: 96;
Schedl 1939i: 383, 1948a: 666, 1954e: 47, 1957e:
875, 1961k: 658, 1979c: 14; Schreiner 1882: 246.

africanus Wood 1988c: 196. Holotype, sex?;
Flussgebiet des oberen Mwena und Ramissi,
Britisch Ostafrika; Methner Collection, automatic.
Figures: Schedl 1961k: 652.

Distribution: Africa (Guinea/ Kenya/ Tanzania/
Uganda/ Zaïre).

Hosts: *Euphorbia* sp.

References: (tx) Wood, S. L. 1988c: 196.

africanus Eggers 1922a: 165 (*Metahylastes*).
Holotype, sex?; Flussgebiet des oberen
Mwena und Ramissi, Britisch Ostafrika; Meth-
ner Collection, preoccupied by Schreiner 1882.
References: (ds) Gardner 1957a: 30; Kleine
1913b: 135, 1914b: 307; Murayama 1957c:
608; Schedl 1938d: 450. (tx) Eggers 1922a:
165, 1927a: 197; Schedl 1938d: 450, 1954e:
47, 1961k: 652, 1962h: 58, 1962k: 1073, 1967a:
129; Wood, S. L. 1988c: 196.

agathis (Browne) 1980c: 486 (*Ozodendron*). Holo-
type, sex?; Tg. Loleo (Borneo) to Nagoya (Japan)
imported; BMNH, London.

Distribution: Indonesia (Borneo).

Hosts: *Agathis* sp.

References: (ds) Ohno, Yoneyama, & Nakazawa
1987: 93. (tx) Browne 1980c: 486.

alternantes Schedl 1975f: 353. Holotype, sex?;
Upper Manki logging area, Bulolo, Morobe Dis-
trict; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.

Notes: (3) Schedl 1979g: 100 (described female).

References: (tx) Schedl 1975f: 353, 1979c: 17,
1979g: 100.

anisopterae (Browne) 1985b: 291 (*Ozodendron*).
Holotype ♂; Tg. Usau (West Irian) to Nagoya
(Japan) imported; BMNH, London.

Distribution: New Guinea.

Hosts: *Anisoptera* sp.

References: (tx) Browne 1985b: 291.

aries (Schedl) 1969e: 158 (*Artepityophthorus*).
Holotype, sex?; New Guinea, Haus Copper, Wan,
Mt. Mission; NHMB, Budapest.

Distribution: New Guinea.

References: (tx) Schedl 1969e: 157–158, 1979c: 25.

bicolor Strohmeier 1910e: 127. Syntypes, sex?;
Aethiopia, Tschertscher montes; Strohmeier Col-
lection.

Figures: Nunberg 1961a: 345.

Distribution: Africa (Ethiopia/ Zaïre).

References: (ds) Kleine 1913b: 135, 1914b: 324.

(tx) Hopkins 1914: 124, 132; Lucas 1920: 357;
Schedl 1950h: 109, 1961k: 653, 1962k: 1073, 1962r:
97; Strohmeier 1910e: 127. (ms) Lucas 1920: 357.

kivuensis Nunberg 1961a: 344 (*Tiarophorus*).

Holotype ♀; Kivi: Kavimvira (Uvira); MRCB,
Tervuren. Synonymy: Schedl 1962r: 97.

References: (tx) Nunberg 1961a: 344–345;
Schedl 1962k: 1073, 1962r: 97.

borneensis Schedl 1967a: 129. Holotype ♀; Tar-
akan (Borneo) to Tokyo (Japan), imported; PPST,
Tokyo.

Distribution: Indonesia (Borneo).

Hosts: Melanti log.

References: (tx) Schedl 1967a: 129, 1979c: 44.

brevior (Eggers) 1927c: 86 (*Pelicerus*). Lectotype
♂; Philippinen: Luzon, Provinz Mountain,
Balaban; USNM, Washington, designated by
Anderson & Anderson 1971: 8.

Distribution: Asia (Burma/ Andaman Islands,
Nicobar Islands in India/ Japan/ Korea/ Malaya/
Thailand), Bismarck Island, Fiji Islands, Indone-
sia (Java), Micronesia (Caroline Islands, Gilbert
Islands, Mariana Islands, Truk Island), Philippine
Islands, Samoan Islands.

Hosts: *Artocarpus incisa*, *A. kunstleri*, rare in
Canarium vulgare, *Lansium domesticum*.

Notes: (3) Schedl 1951b: 363 (*mindoroensis*,
nomen nudum).

References: (hb) Beaver 1976b: 538; Beeson 1929:

231; Kalshoven 1958a: 186, 1958b: 173. (ds)

Beaver 1976b: 538; Beaver & Browne 1975: 289;

Beeson 1929: 231, 1938b: 289, 1961: 290; Browne

1961c: 85, 1966: 245, 1970: 541, 1980a: 370, 1980c:

483, 1981b: 598, 1985a: 191; Choo 1983: 80;

Choo & Woo 1985: 165; Kalshoven 1958a: 186,

1958b: 173; Ohno, Yoneyama, & Nakazawa 1982a:

3, 1987: 93; Ohno et al. 1987: 87, 1988a: 92;

Schedl 1966b: 31, 1971f: 146; Wood, S. L. 1960a:

45. (tx) Anderson, W. H. & Anderson 1971: 8;

Beeson 1929: 231, 1938: 289; Choo 1983: 80; Eg-

gers 1927c: 86; Schedl 1942c: 180, 1951b: 363,

1951i: 50, 1951k: 136, 1952b: 363, 1952c: 63, 1966b:

31, 1979c: 46; Wood, S. L. 1960a: 45.

- chirindaensis** (Schedl) 1948c: 666 (*Dryocoetes*).
Lectotype, sex?; Chirinda, Mashonaland; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 56.
Distribution: Africa (Zimbabwe).
References: (ds) Murayama 1957c: 608. (tx) Murayama 1957c: 608; Schedl 1948c: 666, 1961k: 658, 1979c: 56.
- chlorophorae** (Schedl) 1957d: 66 (*Dryocoetes*).
Holotype, sex?; Cote d'Ivoire, Adiopodoume; Schedl Collection in NHMW, Wien.
Distribution: Africa (Ivory Coast).
Hosts: *Afromosia elata*, *Chlorophora excelsa*, *Macrolobium heudelotianum*.
References: (ds) Schedl 1961k: 659, 1964e: 68. (tx) Schedl 1957d: 66, 1961k: 659, 1979c: 57.
- congonus** (Eggers) 1924: 105 (*Dryocoetes*). Holotype ♀; 300 km von Kindu im Congostaat; MRCB, Tervuren.
Distribution: Africa (Zaire).
References: (ds) Murayama 1957c: 608; Schedl 1961k: 659, 1972e: 281. (tx) Eggers 1924: 105; Murayama 1957c: 608; Schedl 1948c: 666, 1961k: 659.
- cribricollis** Schedl 1957e: 875. Lectotype ♀; Congo Belge, Kivu, Kavinvira (Uvira); Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 69.
Figures: Nunberg 1961a: 341 (adult).
Distribution: Africa (Ghana/ Ruanda/ Zaire).
Hosts: *Elaeophorbia drupifera*.
References: (hb) Browne 1963a: 236–237. (ds) Browne 1963a: 236; Schedl 1961k: 653. (tx) Schedl 1957e: 875, 1961k: 653, 1962k: 1074, 1962r: 96, 1979c: 69.
- dryocoetoides** Nunberg 1961a: 338 (*Cyrtogenius*).
Holotype ♀; Kivu: Sanghe, pl. de la Ruzizi; MRCB, Tervuren. Synonymy: Schedl 1962k: 1074, 1962r: 96.
References: (tx) Nunberg 1961a: 337–341; Schedl 1962k: 1074, 1962r: 96.
- cribripennis** Schedl 1962h: 68. Holotype, sex?; Ghana: Kumasi; BMNH, London.
Distribution: Africa (Ghana).
Hosts: *Triplochiton scleroxylon*.
Notes: (1) Schedl 1964j: 43 (an obvious duplicate description of this species).
References: (ds) Schedl 1961k: 653. (tx) Schedl 1961k: 653, 1962h: 68, 1962k: 1074, 1964j: 43, 1979c: 68–69.
- curtus** (Schedl) 1973f: 71 (*Ozodendron*). Holotype ♀; Waikainma, Normanby Island, M. Bay Distr., 0–50 m; AMNH, New York.
Distribution: New Guinea.
References: (tx) Schedl 1973f: 71, 1979c: 72.
- cyclopus** (Schedl) 1940b: 439 (*Pelicerus*). Holotype ♀?; Dutch New Guinea, Cyclops Mts., Sabron, Camp 2, 2000 ft.; BMNH, London.
Distribution: Fiji Islands, New Guinea.
References: (ds) Schedl 1979f: 103. (tx) Schedl 1940b: 435, 439, 1942a: 178, 1955b: 280, 1979c: 72.
- declivis** (Schedl) 1955b: 294 (*Carposinus*). Holotype, sex?; Neu-Guinea, Friedrich-Wilhelmshafen; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1955b: 280, 294, 1979c: 76.
- depressus** (Browne) 1963b: 243 (*Mimidendrus*). Holotype, sex?; Nigeria: Makurdi; BMNH, London.
Distribution: Africa (Nigeria).
References: (tx) Browne 1963b: 243; Roberts 1969: 125.
- detectus** Schedl 1972e: 289. Holotype, sex?; Ghana, Ashanti Region, Kwadaso, 320 m, N 6 degrees 42', W 1 degree 39'; NHMB, Budapest.
Distribution: Africa (Ghana).
References: (tx) Schedl 1972e: 289, 1979c: 79.
- dimorphus** (Schedl) 1936g: 527 (*Dryocoetes*). Lectotype, sex?; New South Wales: Burwood; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 81.
Distribution: Australia (New South Wales).
Hosts: *Pittosporum* sp.
Notes: (1) Schedl 1979: 81 (to *Cyrtogenius*).
References: (ds) Brimblecombe 1953: 18; Murayama 1957c: 608; Schedl 1936g: 527, 1964c: 305. (tx) Murayama 1957c: 608; Schedl 1936g: 527, 1964c: 305, 1979c: 81.
- dubius** (Eggers) 1924: 105 (*Dryocoetes*). Lectotype, sex?; Congostaat, Kunungu; USNM, Washington, designated by Anderson & Anderson 1971: 12.
Distribution: Africa (Zaire).
References: (hb) Browne 1961b: 15–30. (ds) Murayama 1957c: 608; Schedl 1961k: 659. (tx) Anderson, W. H. & Anderson 1971: 12; Eggers 1924: 105; Murayama 1957c: 608; Schedl 1948c: 666, 1961k: 659, 1979c: 85.
- elongatissimus** Wood 1988c: 196. Holotype, sex?; Borneo; Schedl Collection in NHMW, Wien, automatic.
Distribution: Indonesia (Borneo).
References: (tx) Wood, S. L. 1988c: 196.
- elongatus** Schedl 1964g: 244 (*Ozodendron*). Holotype, sex?; Borneo; Schedl Collection in NHMW, Wien, preoccupied by Eggers 1927.
References: (tx) Schedl 1964g: 244, 1979c: 89; Wood, S. L. 1988c: 196.
- elongatulus** Wood 1988c: 197. Holotype, sex?; Papua New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Wood, S. L. 1988c: 197.
- elongatus** Schedl 1979g: 101 (*Eidophelus*). Holo-

type, sex?; New Guinea: Bulolo, Morobe District, Upper Manki L. A., Schedl Collection in NHMW, Wien, preoccupied by Eggers 1927. References: **(tx)** Schedl 1979g: 101.

***elongatus* (Eggers)** 1927c: 85 (*Pelicerus*). Lectotype ♂; Mindanao, Provinz Lanao, Kolambugan; USNM, Washington.

Distribution: Philippine Islands (Mindanao).

References: **(ds)** Browne 1981b: 597, 1984b: 286, 1985b: 290; Ohno et al. 1987: 87; Schedl 1966b: 31. **(tx)** Anderson, W. H. & Anderson 1971: 12; Eggers 1927c: 85; Nobuchi 1983: 301; Schedl 1979c: 89–90.

***festivus* Schedl** 1975g: 220. Holotype, sex?; New Guinea, Mt. Wilhelm; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: **(tx)** Schedl 1975g: 220, 1979c: 96.

***fijianus* (Schedl)** 1951k: 150 (*Ozopemon*). Lectotype, sex?; Fiji Islands, Viti Levu: Navai Mill, near Nandarivatu, alt. 2300 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 96. Distribution: Fiji Islands.

Hosts: *Agatha vitiensis*, Kauri bark.

References: **(ec)** Roberts 1976: 384. **(hb)** Roberts 1976: 384. **(ds)** Roberts 1976: 384. **(tx)** Browne 1974a: 68; Schedl 1951k: 150, 1955b: 284, 287; 1979c: 96.

***formosanus* (Schedl)** 1952c: 63 (*Orosiotes*). Holotype, sex?; Formosa, Rikiriki; Schedl Collection in NHMW, Wien.

Distribution: Asia (Taiwan).

References: **(ds)** Nobuchi 1967: 20; Schedl 1969a: 204. **(tx)** Schedl 1952c: 63, 1979c: 99.

***frigidus* (Schedl)** 1942a: 178 (*Orosiotes*). Lectotype, sex?; Malaya, Cameron's Highlands; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 100.

Distribution: Asia (Malaya).

References: **(ds)** Browne 1961c: 85. **(tx)** Browne 1965a: 195; Schedl 1942a: 178, 1979c: 100.

***glaber* (Schedl)** 1939e: 344 (*Eulepiops*). Lectotype, sex?; Malaya: Selangor, Sungei Buloh For. Res; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 104.

Distribution: Asia (Malaya).

Hosts: *Artocarpus lakoocha*, *Xanthophyllum* sp.

References: **(ds)** Beeson 1961: 287; Browne 1961c: 87. **(tx)** Schedl 1939e: 344, 1979c: 104.

***gracilis* (Schedl)** 1974d: 462 (*Ozodendron*). Holotype, sex?; Taun logging area, Bulolo, Morobe District; CSIRO, Canberra.

Distribution: New Guinea.

References: **(tx)** Schedl 1974d: 462, 1979c: 108.

***gracillimus* Wood** 1988c: 197. Holotype, sex?; New Guinea: Kaisenik; BMNH, London, automatic.

Distribution: New Guinea.

Hosts: *Castanopsis* sp.

References: **(tx)** Wood, S. L. 1988c: 197.

***gracilis* Browne** 1984d: 95. Holotype, sex?; New Guinea: Kaisenik; BMNH, London, preoccupied by Schedl 1974.

References: **(tx)** Browne 1984d: 95; Wood, S. L. 1988c: 197.

***grandis* (Beeson)** 1929: 232 (*Pelicerus*). Holotype ♀; Samoa: Upolu, Molololelei; BMNH, London. Distribution: Samoa.

References: **(ds)** Beaver 1976b: 538; Beeson 1938b: 289. **(tx)** Beeson 1929: 232; Schedl 1950f: 39, 1951k: 36, 150, 1957d: 12–13, 1964g: 243.

***granistriatus* (Schedl)** 1942c: 180 (*Orosiotes*). Holotype, sex?; Neu-Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: **(tx)** Schedl 1942c: 180, 1979c: 110.

***granulifer* (Beeson)** 1929: 231 (*Pelicerus*). Holotype ♀; Samoa: Tutuila, Pago Pago; BMNH, London.

Distribution: Fiji, Samoa.

References: **(ec)** Roberts 1976: 383. **(hb)** Roberts 1976: 383. **(ds)** Beaver 1976b: 538; Beeson 1938b: 289; Browne 1974a: 64, 1986c: 661; Ohno et al. 1987: 87; Roberts 1976: 383; Schedl 1971f: 148. **(tx)** Beeson 1929: 231; Schedl 1951k: 136.

***grossepunctatus* (Schedl)** 1939e: 346 (*Pelicerus*). Lectotype, sex?; Malaya, Pahang, Tersang; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 113.

Distribution: Asia (Andaman Islands, Madhya Pradesh in India/Malaya).

Hosts: *Canarium* sp.

References: **(ds)** Beeson 1961: 290; Browne 1961c: 85. **(tx)** Schedl 1939e: 346, 1942a: 171, 1979c: 113.

***hirtellus* Schedl** 1953d: 89. Lectotype ♀; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 118.

Distribution: Madagascar.

References: **(tx)** Nunberg 1961a: 342; Schedl 1953d: 89, 1964j: 43, 1977b: 93, 1979c: 118.

***hirtus* (Eggers)** 1923: 162 (*Dryocoetes*). Lectotype, sex?; Deutsch Neu Guinea (Kaiserin Augustafluss); Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 118.

Distribution: New Guinea.

References: **(ds)** Murayama 1957c: 608. **(tx)** Eggers 1923: 162, 1928d: 174; Murayama 1957c: 608; Schedl 1979c: 118.

***hornus* (Schedl)** 1975f: 356 (*Eidophelus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

Notes: (1) Holotype examined by Wood and placed in *Cyrtogenius* (Wood 1983 notes, p. 15).

References: **(tx)** Schedl 1975f: 356, 1979c: 119.

- impar Schedl** 1953d: 88. Lectotype, sex?; Madagascar Sud; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 122.
Distribution: Madagascar.
References: (tx) Numberg 1961a: 342; Schedl 1953d: 88, 1977b: 92–93, 1979c: 122.
- inermis Browne** 1983c: 72. Holotype ♀?; New Guinea: Morobe District, Wau, 1200 m; BMNH, London.
Distribution: New Guinea.
References: (tx) Browne 1983c: 72.
- kumatoensis (Niisima)** 1917: 1 (*Orosiotes*). Syntypes, sex?; Kyushu Island, Kamamoto; Nobuchi Collection, Ibaraki.
Distribution: Asia (Japan).
References: (ds) Murayama 1954b: 200. (tx) Eggers 1939c: 121; Murayama 1954b: 200; Niisima 1917: 1–2; Schedl 1934f: 1647, 1961k: 650.
- laevis (Browne)** 1984b: 289 (*Ozodendron*). Holotype, sex?; Fakfak (West Irian) to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
Hosts: *Terminalia* sp.
References: (tx) Browne 1984b: 289.
- lineatopunctatus (Eggers)** 1927b: 401 (*Xyleborus*). Holotype ♀; New Guinea; USNM, Washington.
Distribution: New Guinea.
Notes: (1) Wood 1989: 172 (to *Cyrtogenius*).
References: (tx) Anderson, W. H. & Anderson 1971: 17; Eggers 1927b: 401; Wood, S. L. 1989: 172.
- longipennis Browne** 1965a: 195. Holotype ♂; Sarawak: Foot of Mt. Murud; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
References: (ds) Browne 1985b: 290; Choo 1983: 81; Choo & Woo 1985: 165. (tx) Browne 1965a: 195; Choo 1983: 81.
- luteus (Blandford)** 1894d: 94 (*Dryocoetes*). Syntypes 9, sex?; Japan; BMNH, London.
Figures: Yin, Huang, & Li 1984: 148 (adult, declivity).
Distribution: Asia (Burma/ Fujian, Guangdong, Guangxi, Henan, Hunan, Jiangsu, Jiangxi, Shanxi, Sichuan, Yunnan in China/ Japan/ Korea), Philippine Islands.
Hosts: *Pinus densata*, *P. khasya*, *P. massoniana*, *P. tabulaeformis*, *P. yunnanensis*.
Notes: (1) Wood 1989: 172 (to *Cyrtogenius*).
References: (ds) Blandford 1894c; Choo 1983: 81; Hagedorn 1910d: 67; Kleine 1913b: 136, 1914b: 258; Murayama 1954b: 173, 1957c: 588, 601; Nobuchi 1967: 20; Yin, Huang, & Li 1984: 147. (tx) Blandford 1894d: 94; Choo 1983: 81; Hagedorn 1910a: 96; Murayama 1954b: 173, 1957c: 588, 601; Schedl 1934f: 1642; Wood, S. L. 1989: 172; Yin, Huang, & Li 1984: 147.
- pini Hopkins** 1915b: 47 (*Carpinus*). Holotype ♀; Baguio, Philippine Islands; USNM, Washington. Synonymy: Wood 1989: 172.
References: (hb) Kalshoven 1958b: 174. (ds) Beeson 1961: 290; Kleine 1934a: 158. (tx) Hopkins 1915b: 47; Schedl 1952b: 363, 1952k: 161, 1957d: 12, 1961k: 650; Wood, S. L. 1989: 172.
- madagascariensis Schedl** 1965c: 61. Holotype, sex?; Madagascar; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
References: (tx) Schedl 1965c: 61, 1977a: 93, 1979c: 144.
- major Strohmeier** 1911h: 16. Holotype, sex?; Aethiopia, Harar; Strohmeier Collection.
Figures: Schedl 1961k: 654.
Distribution: Africa (Ethiopia/ South Africa/ Sudan).
References: (ds) Kleine 1913b: 135, 1914b: 324; Schedl 1961k: 654, 1968b: 144, 1971e: 4, 1975k: 277. (tx) Hopkins 1914: 124, 134; Schedl 1957e: 875, 1961k: 654, 1979c: 145; Strohmeier 1911h: 16.
- malayensis (Schedl)** 1977f: 501 (*Dryocoetes*). Holotype, sex?; Malaya: Kepong; Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya).
References: (tx) Schedl 1977f: 501.
- mayumbensis (Schedl)** 1965e: 369 (*Dryocoetes*). Holotype, sex?; Congo: Luki; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
Hosts: *Carapa procera*.
References: (tx) Schedl 1965e: 369, 1979c: 150.
- millettiae (Schedl)** 1952j: 9 (*Dryocoetes*). Holotype, sex?; Congo Belge: Kivu, Mulungu; IRSNB, Brussels.
Distribution: Africa (Zaire).
Hosts: *Milletia ferruginea*, *Tephrosia vogelii*.
References: (ds) Murayama 1957c: 608; Schedl 1961k: 660. (tx) Murayama 1957c: 608; Schedl 1952j: 9, 1961k: 660, 1965e: 369, 1979c: 153.
- minor (Eggers)** 1923a: 218 (*Pelicerus*). Syntypes 3, sex?; Kaiserin Augustafluss in New Guinea; MNB, Berlin, and Eggers Collection, in NHMW, Wien.
Distribution: New Guinea, Philippine Islands.
References: (ds) Browne 1966: 245, 1981b: 599. (tx) Eggers 1923a: 218; Nobuchi 1983: 301; Schedl 1940b: 435.
- minor robustus Schedl** 1940b: 438 (*Pelicerus*). Holotype, sex?; Dutch New Guinea, Cyclops Mts., Sabron Camp 1, 1200 ft.; BMNH, London.
Notes: (3) It is probable that this variation is an aberration, not a geographical race; if so, it has no status in nomenclature.
References: (tx) Schedl 1940b: 438.
- movoliae (Schedl)** 1957d: 68 (*Mimidendrulus*). Holotype ♂; Congo Belge: Kivu, Mulungu; MRCB, Tervuren.

Figures: Schedl 1961k: 734.

Distribution: Africa (Ruanda/Zaire).

Hosts: *Lobelia giberroa*, *Microglossa volubilis*, "Movolia."

References: (hb) Schedl 1961k: 733. (ds) Mayne & Donis 1962: 303; Schedl 1961k: 733. (tx) Schedl 1957d: 68, 1961k: 733–734, 1979c: 160.

mulungensis (Schedl) 1952j: 10 (*Dryocoetes*). Lectotype ♀; Congo Belge: Kivu, Mulungu; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 161.

Figures: Schedl 1961k: 661.

Distribution: Africa (Ruanda/Zaire).

Hosts: *Cajanus cajan*, *Cinchona ledgeriana*, *Helichrysum pandurctum*, *Millettia ferruginea*, *Rumex* sp., *Solanus aculeastrum*.

References: (ds) Mayne & Donis 1962: 305; Murayama 1957c: 608; Schedl 1961k: 661. (tx) Murayama 1957c: 608; Schedl 1952j: 10, 1961k: 661, 1979c: 161.

nitidus (Hagedorn) 1910b: 1 (*Lepicerus*). Holotype, sex?; Sumatra; Hamburg Museum, lost.

Distribution: Asia ("China"/ Vietnam), Australia (Queensland), Bismarck Islands, Indonesia (Sumatra), New Guinea, Solomon Islands.

Hosts: *Euroschinus falcatus*.

Notes: (3) View continental distribution with caution; these records may be based on misidentified *luteus* (SIW).

References: (ds) Beeson 1938b: 289; Hagedorn 1910d: 69; Kalshoven 1958b: 174; Kleine 1913b: 139, 1914b: 286; Schedl 1960e: 172, 1962b: 184, 1965a: 339, 1966b: 32, 1969a: 205, 1973c: 378. (tx) Browne 1970: 564; Eggers 1923a: 216–218; Hagedorn 1910a: 91, 1910b: 1; Nobuchi 1983: 301; Schedl 1940d: 585, 588, 1950g: 894, 1952b: 363, 1952d: 343, 345, 1955b: 294, 1957d: 12, 1960e: 172, 1961k: 651, 1964m: 306, 1965c: 61.

nitidus orientalis Eggers 1923a: 217 (*Pelicerus*). Lectotype ♀; Neu Guinea (Salvatti); USNM, Washington, designated by Anderson & Anderson 1971: 217.

References: (ds) Brimblecombe 1953: 14; Browne 1985b: 291; Ohno, Yoneyama, & Nakazawa 1987b: 93; Ohno, Yoshioka, et al. 1985a: 92, 1989: 60; Schedl 1936g: 526, 1940b: 435, 1972a: 144. (tx) Anderson, W. H. & Anderson 1971: 23; Beeson 1929: 232; Eggers 1923a: 217; Schedl 1957d: 12.

noumeanus (Browne) 1970: 563 (*Dryocoetes*). Holotype ♂; in island Kauri log from Noumea, New Caledonia, intercepted at Auckland, New Zealand; BMNH, London.

Distribution: New Caledonia.

Hosts: Kauri.

References: (tx) Browne 1970: 563.

papuae Wood 1988c: 197. Lectotype ♂; Deutsch Neu Guinea (Kaiserin Augustafluss); USNM, Washington, designated by Anderson & Anderson 1971: 23, automatic.

Distribution: New Guinea.

References: (tx) Wood, S. L. 1988c: 197.

papuanus Eggers 1923a: 217 (*Pelicerus*). Lectotype ♂; Deutsch Neu Guinea (Kaiserin Augustafluss); USNM, Washington, designated by Anderson & Anderson 1971: 23, preoccupied by Eggers 1923.

References: (tx) Beeson 1929: 232; Eggers 1923a: 217.

papuanus (Eggers) 1923a: 162 (*Dryocoetes*). Syn-types 2, sex?; Ansum auf Neu Guinea; MCG, Genova and Eggers Collection, in NHMW, Wien, or USNM, Washington?

Distribution: New Guinea.

References: (ds) Browne 1980d: 491; Ohno, Yoneyama, Nakazawa 1987a: 87; Schedl 1969a: 204. (tx) Eggers 1923a: 162; Nobuchi 1983: 301.

papuensis Wood 1988c: 197. Holotype, sex?; Mt. Dayman, Maneau Range, N. Slope, M. Bay Distr., 700 m; AMNH, New York.

Distribution: New Guinea.

References: (tx) Wood, S. L. 1988c: 197.

papuanus Schedl 1973f: 71 (*Eidophelus*). Holotype, sex?; Mt. Dayman, Maneau Range, N. Slope, M. Bay Distr., 700 m; AMNH, New York, preoccupied by Eggers 1923.

Notes: (1) Wood examined the holotype and assigned it to *Cyrtogenius* (Wood 1983 notes, p. 15).

References: (ds) Murayama 1957c: 608. (tx) Murayama 1957c: 608; Schedl 1973f: 71, 1979c: 183.

parinari (Browne) 1983a: 556 (*Ozodendron*). Holotype, sex?; Lever Harbour (Solomon Islands) to Nagoya (Japan), imported; BMNH, London.

Distribution: Solomon Islands.

Hosts: *Parinarium* sp. log.

References: (ds) Ohno, Yoshioka, et al. 1985a: 92.

(tx) Browne 1983a: 556.

parvus Browne 1980d: 495. Holotype, sex?; Atsy (New Guinea) to Nagoya (Japan) imported; BMNH, London.

Distribution: New Guinea.

Hosts: *Artocarpus* sp.

References: (ds) Browne 1984b: 287. (tx) Browne 1980d: 495.

perakensis (Schedl) 1936d: 9 (*Dryocoetes*). Lectotype ♀; Malay Peninsula: Perak, Taiping; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 188.

Distribution: Asia (Hong Kong in China/ Malaya), Indonesia (Borneo).

Hosts: *Agathis alba*, *A. dammara*.

References: (hb) Browne 1961c: 85. (ds) Browne 1961c: 85, 1965a: 188, 1980a: 372, 1980c: 483,

1981b: 597; Murayama 1957c: 308; Schedl 1975a: 454. (tx) Browne 1944: 897, 1970: 563; Murayama 1957c: 308; Schedl 1936d: 9, 1939e: 348, 1957d: 13, 1979c: 188.

castaneus Browne 1949b: 896 (*Dryocoetes*).

Holotype, sex?; Malaya: Kelantan, Kuala Krai; BMNH, London. Synonymy: Browne 1970: 563.

References: (ds) Browne 1961c: 84; Murayama 1957c: 607. (tx) Browne 1949b: 896, 1970: 563; Murayama 1957c: 607.

peregrinus Schedl 1972i: 50. Holotype ♀; New Guinea (N.W.), Wisselmeren, Enarotadi, 1850 m; BPBM, Honolulu.

Distribution: New Guinea.

References: (tx) Schedl 1972i: 50, 1979c: 189.

philippinensis (Eggers) 1927c: 87 (*Pelicerus*). Lectotype ♂; Philippinen: Catanduanes, Prov. Albay, Virac; USNM, Washington, designated by Anderson & Anderson 1971: 25.

Distribution: Asia (Ryuku Islands), Indonesia (Sumba), Philippine Islands.

Hosts: *Pinus densiflora*, *P. thunbergii*.

References: (ds) Nobuchi 1971a: 126; Schedl 1961c: 71. (tx) Anderson, W. H. & Anderson 1971: 25; Eggers 1927c: 87, 1941b: 222; Nobuchi 1959c: 21; Schedl 1940b: 435, 1951i: 50, 1961c: 71, 1966b: 31, 1979c: 192.

polypagus (Schedl) 1952i: 12 (*Dryocoetes*). Holotype ♀; Congo Belge: Mulungu; MRCB, Tervuren.

Figures: Schedl 1961k: 662.

Distribution: Africa (Zaire).

Hosts: *Caesalpinia decapetala*, *C. cf. sopiaria*, *Loranthus* sp., *Melanthera brownii*.

References: (ds) Mayne & Donis 1962: 306; Murayama 1957c: 608; Schedl 1961k: 662. (tx) Murayama 1957c: 608; Schedl 1952i: 12, 1961i: 662, 1961k: 662, 1979c: 197.

preparvus Browne 1986c: 664. Holotype ♂; New Guinea: Tanjong Usan to Nagoya [Japan], imported; BMNH, London.

Distribution: New Guinea.

Hosts: *Terminalia* sp.

References: (tx) Browne 1986c: 664.

rugicollis (Eggers) 1940d: 132 (*Orosiotes*). Holotype, sex?; Java (Buitenzorg); Kalshoven Collection.

Distribution: Indonesia (Java).

References: (hb) Kalshoven 1958: 173. (ds) Schedl 1966b: 32. (tx) Eggers 1940d: 132–133; Nobuchi 1983: 301; Schedl 1979c: 216.

ruginosus Wood 1988c: 197. Holotype ♂; Ivory Coast: Adiopodoume; RNH, Leiden, automatic.

Distribution: Africa (Ivory Coast).

References: (tx) Wood, S. L. 1988c: 197.

rugicollis Browne 1965a: 194 (*Mimidendrus*).

Holotype ♂; Ivory Coast: Adiopodoume; RNH, Leiden, preoccupied by Eggers 1940.

Notes: (1) Wood 1986a: 74 (to *Cyrtogenius*).

References: (tx) Browne 1965a: 194; Wood, S. L. 1986a: 74, 1988c: 197.

rugipennis (Schedl) 1958k: 143 (*Carpophlocus*).

Lectotype ♂; Sumatra's Westkust, Gungug Singgalang, 1800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 216.

Distribution: Indonesia (Sumatra).

References: (tx) Schedl 1958k: 143, 1979c: 216.

samoanus (Eggers) 1928d: 174 (*Dryocoetes*).

Lectotype, sex?; Apia; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 218.

Distribution: Samoan Islands.

References: (hb) Beeson 1929: 233. (ds) Beeson 1929: 233, 1938b: 287; Murayama 1957c: 608. (tx) Beeson 1929: 233; Eggers 1928d: 174; Murayama 1957c: 608; Schedl 1936g: 527, 1951k: 136, 1979c: 218.

sarawakensis (Schedl) 1954c: 155 (*Dryocoetes*).

Lectotype, sex?; Borneo, Saravak, Mt. Penrissen, 4500 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 219.

Distribution: Indonesia (Saravak in Borneo).

References: (tx) Browne 1970: 563; Schedl 1954c: 155, 1979c: 219.

scabricollis Browne 1980b: 385. Holotype ♂; Bulma (New Britain) to Nagoya (Japan) imported log; BMNH, London.

Distribution: New Britain Island.

References: (tx) Browne 1980b: 385.

scotti Eggers 1936b: 31. Holotype ♂; Abyssinia: Jem Jem Forest, ca 8000 ft.; BMNH, London, type damaged.

Distribution: Africa (Ethiopia).

Hosts: *Euphorbia* sp.

References: (ds) Schedl 1961k: 655. (tx) Eggers 1936b: 31; Schedl 1961k: 655.

sedlaceki (Schedl) 1975f: 353 (*Ozodendron*). Holotype ♀; New Guinea NW, Wisselmeren, Enarotadi, 1850–1900 m; BPBM, Honolulu.

Distribution: New Guinea.

References: (tx) Schedl 1975f: 353.

silvaniae Schedl 1982: 285. Holotype, sex?; Transvaal: Graskop Forest; Schedl Collection in NHMW, Wien.

Distribution: Africa (South Africa).

References: (tx) Schedl 1982: 285.

siporanus (Eggers) 1923: 163 (*Dryocoetes*). Holotype, sex?; Sipora auf der Insel Mentawai; MCG, Genoa.

Distribution: Indonesia (Mentawai Island).

References: (ds) Murayama 1957c: 608. (tx) Eggers 1923: 163; Murayama 1957c: 608.

subacuminatus (Schedl) 1939e: 347 (*Pelicerus*). Syntypes ♂; Malaya, Selangor: Kepong; BMNH, London.

Distribution: Asia (Malaya/ Thailand).

Hosts: *Elatospermium tapos*.

References: (ds) Beaver & Browne 1975: 289; Beeson 1961: 290; Browne 1961c: 86. (tx) Browne 1965a: 195; Schedl 1939e: 347–348, 1979c: 239.

subgranosus (Schedl) 1973f: 72 (*Eidophelus*).

Holotype ♀; Waikaima, Normanby Isl., M. Bay Distr., 0–50 m; AMNH, New York.

Distribution: New Guinea.

Notes: (1) Wood examined the holotype and referred it to *Cyrtogenius* (Wood 1983 notes, p. 15). References: (tx) Schedl 1973f: 72, 1979c: 241.

subgranosus affinis Schedl 1973f: 73. Holotype, sex?; Waikaima, Normanby Isl., M. Bay Distr.; AMNH, New York.

Notes: (3) Wood examined the holotype and referred it to *Cyrtogenius* (Wood 1983 notes, p. 15).

References: (tx) Schedl 1973f: 73, 1979c: 241.

subsulcatus (Schedl) 1979g: 102 (*Eidophelus*).

Holotype, sex?; Baipaa, Central District; New Guinea: Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1979g: 102.

sulcatus (Schedl) 1979g: 103 (*Eidophelus*). Holotype, sex?; New Guinea: Bulolo, Morobe District, Upper Manki L. A.; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

Notes: (1) Wood examined the holotype and referred it to *Cyrtogenius* (Wood 1983 notes, p. 15). References: (tx) Schedl 1979g: 103.

suturalis Browne 1970: 564. Holotype, sex?; Singapore; BMNH, London.

Distribution: Asia (Malaya).

References: (tx) Browne 1970: 564.

tenuis (Schedl) 1958b: 102 (*Carposinus*). Syntypes, sex?; Malaya, Kelantan; BMNH, London and Schedl Collection in NHMW, Wien.

Distribution: Asia (Malaya).

Notes: (1) Schedl, in his collection, incorrectly placed this species in *Taphrostenoxis*, nomen nudum.

References: (ds) Browne 1961c: 86, 1981a: 126, 1981b: 599. (tx) Schedl 1958b: 102, 1979c: 251, 1979c: 251.

tuberculatus (Schedl) 1973f: 72 (*Eidophelus*).

Holotype, sex?; Mt. Dayman, Maneau Range, N. Slope, M. Bay Distr., 700 m; AMNH, New York.

Distribution: New Guinea.

Notes: (1) Wood examined the holotype and referred it to *Cyrtogenius* (Wood 1983 notes, p. 15). References: (tx) Schedl 1973f: 72, 1979c: 257.

tuberculifer Schedl 1950h: 109. Holotype, sex?; Madagascar; Schedl Collection in NHMW, Wien.

Distribution: Madagascar.

Hosts: *Cauarium boivin*, *C. spp.*, *Clerodendron* sp., *Ficus* sp., *Maesa lanceolata*, *Pachytrophe*

dimepate.

Notes: (3) Schedl 1953d: 89 (described male).

References: (hb) Schedl 1977b: 93. (ds) Schedl 1970d: 233, 1977b: 93. (tx) Nunberg 1961a: 340; Schedl 1950h: 109, 1953d: 69, 89, 1977b: 93, 1979c: 258.

unicus (Schedl) 1975f: 355 (*Eidophelus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1975f: 355, 1979c: 260.

variipennis (Schedl) 1971c: 386 (*Xyleborus*). Holotype ♀; Malaya, Kepong; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Elaeocarpus pectiolatus*.

References: (tx) Schedl 1971c: 386–387, 1979c: 264.

vaticae (Nunberg) 1961b: 617 (*Taphroborus*).

Holotype, sex?; Malay Peninsula, Kelantan (Mengkebang); BMNH, London.

Figures: Nunberg 1961b: 628–629.

Distribution: Asia (Malaya).

Hosts: *Vatica* sp.

References: (ds) Browne 1981a: 126, 1981b: 599, 1985a: 191; Ohno, Yoneyama, & Nakazawa 1987: 93. (tx) Browne 1965a: 195; Nunberg 1961b: 617, 628–629; Schedl 1961k: 651, 1962n: 699.

Genus *Dryocoetes* Eichhoff

DRYOCOETES EICHHOFF 1864: 38. Type-species:

Bostrichus autographus Ratzeburg, subsequent designation by Hopkins 1914: 121.

Anodius Motschulsky 1860: 155. Type-species:

Bostrichus autographus Ratzeburg, subsequent designation by Wood 1974e: 232. International Commission on Zoological Nomenclature (ICZN) 1979: 149 (name suppressed).

References: (tx) ICZN 1979: 149; Motschulsky 1860: 155; Wood, S. L. 1974e: 232.

Dryocoetinus Balachowsky 1949a: 180. Type-species: *Bostrichus villosus* Fabricius, original designation. Synonymy: Schedl 1958k: 143.

References: (tx) Balachowsky 1949a: 176, 180; Bright 1963: 107; Endrodi 1957: 417; Schedl 1958k: 143.

Keys: Bright 1963: 107 and Wood 1982b: 724 for North America; Reitter 1913a: 75 for Europe; Murayama 1957: 594 for Japan; Yin, Huang, & Li 1984: 144 for China.

References: (ay) Fuchs 1912; Nobuchi 1969a: 61; Nusslin 1911, 1912. (ec) Balazy & Michalski 1964a; Balch 1941: 1–4; Butovitsch & Spaak 1939: 1–120; Chapman 1957: 3–4; Davidson & Robinson 1965: 488–498; Hewitt 1914: 501, 1917: 1–70; Lindquist 1970a: 980; Nickle 1976b; Wisniewski 1979b. (hb) Blackman 1950: 326, 333, 336; Escherich 1923: 51, 476, 487; Felt 1906: 337; Gardner 1934: 4, 12–13; Judeich & Nitsche 1895: 449; Schedl 1958d: 188; Wood, S. L. 1986a: 74. (ds) Bright & Stark 1973: 74; Hagedorn 1910d: 65–68; Patterson & Hatch 1945: 154; Provancher

1877: 568; Schedl 1934f: 1642, 1966b: 41; Scheerpeltz & Winkler 1934: 257; Swaine 1909: 101; Tredl 1917: 17; Wood, S. L. 1986a: 74. **(tx)** Arnett 1960: 1043, 1968: 1043; Balachowsky 1949a: 177–182; Barbey 1901: 100; Beal & Massey 1945: 53, 61, 159; Bedel 1888b: 396, 400; Beeson 1938: 257, 1941: 372–373; Blackman 1922b: 78, 120, 1950; Blandford 1894d: 54, 91–92, 96, 98, 1895: 84, 1897: 183, 1898b: 186; Bright 1963: 103–115, 1975, 1978: 124; Browne 1961c: 83; Chamberlin 1939: 463–464, 1958: 187–191; Choo 1983: 82–84; Choo, Woo, & Nobuchi 1988b; Dodge 1938: 54–55; Eggers 1937: 80, 1940: 123–141; Eichhoff 1864: 38, 1878a: 388, 1878b: 35, 55–56, 283, 1881a: 261; Endrodi 1957b: 417; Ferrari 1867a: 27–28; Gardner 1934: 12–13; Hagedorn 1908: 377, 1910a: 88–89, 93–96, 1910b: 2, 1912: 354; Hopkins 1914: 121, 132, 1915b: 9, 49–50, 1915c: 192–226; Karaman 1972: 111; Kostin 1973: 257; Krivolutsкая 1958: 153–155; Kurenzov 1941: 165–175; LeConte 1868: 167, 1876: 361; LeConte & Horn 1883: 518; Lovendal 1889: 23–24, 66; Murayama 1957; Niisima 1909: 151; Nishiguchi 1959: 270–274; Pfeffer 1955: 168–173, 1989a: 57; Reitter 1894: 68–69, 87–89, 1906: 713, 1913a: 75–78; Saalas 1914: 84–85; Schedl 1936g, 1939i: 384, 1940c: 203–208, 1957d: 1–162, 1958k: 143, 1961k: 655, 1962n: 697–699, 1962p: 205, 1965e: 349–379, 1981b: 70; Schimitschek 1937: 50–53; Schreiner 1882: 246–247; Sokanovskii 1930: 801–802; Spessivtsev 1922: 473, 1931: 50; Stark 1952: 323–339; Stebbing 1907: 38, 1908: 11–12; Strohmer 1911: 17; Swaine 1913: 87–92, 1918a: 128–133, 1924: 1–26; Wachtl 1876: 460; Wichmann 1927: 348; Wood, S. L. 1974e, 1978a: 113, 1978e: 232–233, 1982b: 723–731, 1986a: 74–75; Yin & Huang 1981: 564; Yin, Huang, & Li 1984: 144.

aceris *Krivolutsкая* 1968: 58. Holotype, sex?; Kurile Islands [not seen; not located].

Figures: *Krivolutsкая* 1968: 59 (adult).

Distribution: Asia (E USSR).

Hosts: *Acer pictum*.

References: **(tx)** *Krivolutsкая* 1968: 58–59.

affaber (**Mannerheim**) 1852: 359 (reprint p. 77) (*Bostrichus*). Holotype ♀; Sitka Island, Alaska; MZU, Helsinki.

Figures: Bright 1963: 112, 1976d: 203, 211, Kusch 1967: 10.

Distribution: North America (Alaska/ all provinces of Canada/ N Arizona, Colorado, Idaho, Maine, Michigan, Minnesota, Montana, New Hampshire, New Mexico, New York, North Carolina, Oregon, Pennsylvania, South Dakota, Tennessee, Utah, Washington, West Virginia, Wisconsin, Wyoming in USA).

Hosts: *Picea* spp., rare in *Abies* spp., *Pinus* spp., *Larix* sp., *Tsuga heterophylla*.

Notes: (1) LeConte 1876: 361 (to *Dryocoetes*).

References: **(ay)** Bright 1963: 105; Farris 1969:

531; Thomas, J. B. 1957: 4, 1967. **(bv)** Baker, W. L. 1972: 263; Furniss, M. M., Baker, & Hostetler 1976: 1300. **(cn)** Balch 1941, 1945; Beckwith 1972; Blackman 1950; Brown, R. L. & Winter 1981; Chenier & Philogene 1989; Doane et al. 1936; Hatch 1938: 194; Hoffmann 1942b: 400; Hopkins 1899b: 21, 27, 1901b: 8; Keen 1938: 128, 1952c: 165; Lindquist, O. H. & Syme 1981: 40; Lyons 1956: 600; Martin, J. L. 1965; Massey & Wygant 1954: 21; McGuffin & Barker 1947: 57; Packard 1890: 810, 857; Rodary 1959: 852; Schuder 1969: 76; Smith, G. W. & Melvin 1974a, 1974b; Swaine 1918a: 130, 132, 1924d: 9, 19; Swaine et al. 1924: pl. 21; Syme & Nystrom 1988: 40; Thomas, J. B. 1958: 94; Wong, H. R. & Melvin 1973. **(ec)** Beckwith 1972b; Bedard 1933a; Blackman & Stage 1918; Felt 1906: 752; Furniss, R. L. & Carolin 1977: 378; Gobeil 1936b; Hopkins 1901b: 8; Keen 1938: 128; Knight 1961: 212; Massey & Wygant 1954: 21; Matthews 1970; McAlpine 1964; Morley 1939: 244; Price 1966: 241; Rodary 1959: 852; Ross, D. A. 1968; Swaine 1924d: 9; Thomson, J. B. 1955: 94; Tomalak, Welch, & Calloway 1989b; Werner & Holsten 1984; Wichmann 1955a: 102. **(hb)** Baker, W. L. 1972: 263; Beckwith 1972b; Beckwith, Wolff, & Zasada 1977; Blackman 1919: 1–10, 1950; Blackman & Stage 1918; Bright 1963: 111, 1976d: 128; Chamberlin 1939: 467; Chittenden 1890; Doane et al. 1936; Felt 1906: 752; Furniss, R. L. & Carolin 1977: 378; Gara & Holsten 1975; Gobeil 1936b, 1936c; Godwin & Odell 1965: 213–219; Harrington 1891: 26, 1902b; Hopkins 1899b: 21, 1901b: 18; Keen 1938: 128, 1952c: 165; Knight 1961: 213; Lyons 1956: 600; Massey & Wygant 1954: 21; Morley 1939: 244; Packard 1890: 857; Pierce 1907: 292; Schwarz 1888a: 80, 1895a: 143; Swaine 1918a: 130, 132, 1924d: 9; Swaine et al. 1924: pl. 21; Watson 1928: 620; Wong, H. R. & Melvin 1973; Wood, S. L. 1982b: 729. **(ds)** Anonymous 1926c: 520; Ashworth 1977, 1980; Ashworth & Cavanara 1983; Austara et al. 1983; Beckwith 1972a; Bedard 1938a; Blackman 1950; Blatchley & Leng 1916: 613; Bright 1963: 111, 1971b: 126, 1976d: 128; Broun 1934; Brown, R. L. & Winter 1981; Chamberlin 1925, 1939: 467, 1958: 189–190; Chittenden 1890; Dodge 1938; Drooz 1985: 39; Eidmann 1935; Elias 1982b, 1982c, 1982d, 1983, 1985: 39; Elias, Short, & Clark 1986; Evans, D. 1983: 32; Evans, D., Lowe, & Hunt 1978; Farris 1969: 531; Furniss, R. L. & Carolin 1977: 378; Gara & Holsten 1975; Gast et al. 1989: 385; Gautreau 1974: 5; Gemminger & Harold 1872: 2687; Hagedorn 1910d: 65; Hamilton 1893, 1894a: 35; Harrington 1891: 26; Henshaw 1885: 148; Hoffmann 1952b: 400, 1956: 90; Hopkins 1893a: 137–138, 1893b: 212; Hoppling 1922; Horion 1951; Hubbard & Schwarz 1878a: 666; Keen 1929: 42, 1938: 128, 1952c: 165; Kleine 1913b: 135, 1934a: 155; Kusch 1967;

Leng 1920: 342; Leonard 1928: 520; Lindquist, O. H. & Syme 1981: 40; Morgan, A. V. & Morgan 1980: 1110; Murayama 1957c: 606; Patterson & Hatch 1945: 154; Pilny, Morgan, & Morgan 1987; Ross, D. A. 1968; Ruppel 1967: 37; Schuder 1969: 76; Schwarz 1885a: 80; Smith, G. J. & Melvin 1974a, 1974b; Still, Tidbury, & Melvin 1974a, 1974b; Susut & Melvin 1974; Swaine 1909: 101, 1919b: 9; Syme & Nystrom 1988: 40; Van Dyke 1924: 26; Werner & Holsten 1984; Wichmann 1955a: 102; Wickham 1896a: 309; Winter, T. G. 1983: 9; Wood, S. L. 1972a: 416, 1982b: 729. **(tx)** Beckwith 1972a, 1972b; Benoit 1955: 95; Blatchley & Leng 1916: 613; Bright 1963: 107–108, 112, 1976d: 128, 203, 211; Chamberlin 1939: 467, 1958: 189–190; Dodge 1938: 55–56; Evans, D. 1983: 32; Fall 1926: 208; Hagedorn 1910a: 96; Hopkins 1915b: 50; Inouye & Nobuchi 1959a: 122–123; Keen 1929: 42; Kusch 1967: 10; LeConte 1857: 22, 1868: 162, 1876: 361; Lindquist, O. H. & Syme 1981: 40; Mannerheim 1852: 359, 1853: 235; Murayama 1957c: 606; Pardy 1977, 1983; Schwarz 1895a: 143; Swaine 1909: 101, 1912: 350–351, 1918a: 130, 132, 1919b: 9; Syme & Nystrom 1988: 40; Thomas, J. B. 1957: 4, 1967; Titus, Meikle, & Harrison 1985: 59; Wood, S. L. 1969c: 114, 1972a: 416, 1982b: 729. **(ms)** Chenier & Philogene 1989; Hatch 1935: 194.

pubescens Swaine 1912a: 350. Holotype ♀; Colorado [USA]; Cornell University Collection, Ithaca, New York. Synonymy: Bright 1963: 111. References: **(cn)** Swaine 1918a: 130, 132. **(hb)** Chamberlin 1939: 468; Swaine 1918a: 130, 132. **(ds)** Chamberlin 1939: 468; Kleine 1913b: 136; Larroche & Torossian 1971; Leng 1920: 342; Murayama 1957c: 606; Wood, S. L. 1951a: 128. **(tx)** Bright 1963: 111, 1967b: 674; Chamberlin 1939: 468; Eichhoff 1878b: 286; Murayama 1957c: 606; de Ruette 1970: 100; Swaine 1912a: 350, 1918a: 130, 132; Wood, S. L. 1951a: 128.

piceae Hopkins 1915b: 51. Holotype ♀; Cranesville, West Virginia [USA]; USNM, Washington. Synonymy: Bright 1963: 111.

References: **(cn)** Blackman 1919: 149, 1950; Connola et al. 1956; Swaine 1918a: 130. **(ec)** Thompson, W. R. & Simmonds 1964: 128, 1965: 16. **(hb)** Baker, W. L. 1972: 264; Beal & Massey 1945: 160; Blackman 1950; Chamberlin 1939: 468; Drake 1921; Swaine 1918a: 130. **(ds)** Beal & Massey 1945: 160; Beaulne 1956; Blackman 1950; Blatchley & Leng 1916: 613; Chamberlin 1925, 1939: 468; Drake 1921: 201; Kleine 1934a: 155; Leng 1920: 342; Murayama 1957c: 606. **(tx)** Beal & Massey 1945: 160; Blatchley & Leng 1916: 613; Bright 1963: 111; Chamberlin 1939: 468; Hopkins 1915b: 50–52; Murayama 1957c: 606; Swaine 1918a: 130, 132.

affinis Blandford 1894c: 93. Holotype, sex?; Oyayama, Japan; BMNH, London.

Distribution: Asia (Japan).

References: **(ds)** Blandford 1894c: 93; Hagedorn 1910d: 65; Kleine 1913b: 135, 1914b: 258; Murayama 1954b: 172, 1957c: 588, 600. **(tx)** Blandford 1894c: 93; Hagedorn 1910a: 96; Murayama 1954b: 172, 1957c: 588, 600; Schedl 1934f: 1642.

alui (Georg) 1856: 59 (*Bostrichus*). Syntypes, sex?; Luneburg, Germany; not located.

Figures: Grune 1979: 90.

Distribution: Asia (Turkey), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Hungary/ Italy/ Norway/ Poland/ Romania/ Scotland/ Sweden/ W USSR).

Hosts: *Alnus incana*, *A. glutinosa*, *A. viridis*, *Corylus avellana*, *Fagus orientalis*.

References: **(ay)** Escherich 1923b: 487; Murayama 1933a: 7. **(bv)** Grune 1979: 91. **(cn)** Acatay 1943a: 66; Escherich 1923b: 487; Georgescu et al. 1957: 357, 405; Grandi 1951; Kholodkovskii 1912: 319; Palm 1948b: 214, 1951: 232; Nusslin 1913: 283; Pierce, W. D. 1917: 12; Rhumbler 1922: 326, 1927: 343; Saalas 1949: 342, 374; Schimitschek 1937c: 53, 1955a: 141, 1955c: 84; Schwerdtfeger 1944a: 175, 1957a: 182. **(cc)** Benick 1952; Heqvist 1963: 153, 1967: 69; Kangas 1942b; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1983; Kleine 1908c: 217, 1909a: 49, 77, 1944: 70; Kurenzov 1934a: 54; Michalski & Ratajczak 1989; Novak 1952: 416; Nuorteva 1956a: 17, 1957b: 53, 1968a, 1970; Palmen 1946: 194; Pfeffer 1932a: 19; Saalas 1930: 118, 1949: 342, 374; Schimitschek 1955a: 141; Schwerdtfeger 1944a: 175, 1957a: 182; Smetana 1958: 95. **(hb)** Acatay 1943a: 66; Barbey 1901: 27, 101; Bruce 1944: 28; Dombrowsky 1887, 1888; Eichhoff 1881a: 52, 262; Elfving 1902; Escherich 1923b: 487; Fuchs 1904a, 1906b; Gillanders 1908; Gomostaev 1916: 313; Grandi 1951; Györfi 1957; Henschel 1876a: 240, 1895a: 188; Kangas 1940b; Karpinski 1933b: 29; Kholodkovskii 1912: 319; Lengerken 1939: 64, 1954: 84; Lindemann 1881a: 237; Munro 1926: 70; Nunberg 1929c: 121; Nuorteva 1968a, 1970; Nusslin 1898: 275, 1913: 283; Palm 1951: 232, 1954a: 185; Pfeffer 1942a: 16, 1989a: 58; Postner 1974: 424; Rhumbler 1922: 326, 1927: 343; Saalas 1913a: 68, 85, 1949: 342, 374; Schedl 1981b: 71; Schimitschek 1955a: 141; Schwerdtfeger 1944a: 175, 1957a: 182, 1981: 188; Shatilov 1985; Spesivtsev 1913a: 93; Stark 1926a: 335, 1952: 332; Wachtl 1876a: 460. **(ds)** Allen 1973; Ammann & Knabl 1923; Arnoldi et al. 1955: 704; Bejer-Petersen & Jorum 1977: 21; Benick 1921; Bergroth 1886; Borchert 1951; Brakman 1966: 205; Brancsik 1906; Buresh & Lazarov 1956; Butovitsch & Heqvist 1947; Calwer 1884, 1893;

- Chorbadzhievo 1924d; Chrystal 1922; Crowson 1971: 51; Debatisse 1945; Endrodi 1957b: 417, 1958b: 307; Escherich 1923b: 487, 1932b; Fowler 1891; Fuchs 1904a, 1905a, 1906b; Gemminger & Harold 1872: 2687; Gerhardt 1903b; Gornostaev 1917; Gozis 1875: 80; Grill 1895: 312; Grune 1979: 91; Hagedorn 1910d: 65; Hansen, V. 1939, 1956, 1964: 460; Hellen 1947; Heliessen 1916: 84; Henschel 1895a: 188; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 713; Kangas 1940: 41–50, 1942b; Karpinski 1932b: 54, 1933b: 29; Kersten 1933: 75; Kiefer et al. 1942: 529; Kinelski et al. 1959: 245; Klefbeck & Sjöberg 1960: 230; Kleine 1912a: 268, 1913a: 35, 1913b: 135, 1934a: 155; Kloft & Hinks 1945: 218; Koch 1977: 31; Kolbe, W. 1918: 211; Kraatz 1869: 59; Kurenzov 1934a: 54, 1938a: 66; Kurir 1947c: 37; Lacordaire 1866: 383; Langhoffer 1915c: 158; Ledercq 1971; Lindemann 1884b: 264; Lomnicki 1913b: 148; Lovendal 1890c: 211; Lucht 1987: 277; Lundberg 1977, 1981: 151; Matthews & Fowler 1883: 42; Meinert 1887: 70; Mirzoiian 1950: 140; Mosley 1893: 193; Munro 1926: 4–77; Munster 1928: 291; Murayama 1957c: 607; Negro 1968a: 456; Novak, P. 1952: 416, 1964; Nunberg 1928b: 88, 109, 1954: 57; Nuorteva 1971: 71; Nusslin 1898: 275; Palm 1943: 85, 1947a: 173, 1959: 24, 32, 1960: 351; Palmen 1946: 194; Penecke 1898: 254; Pfeffer 1924b: 472, 1930b: 119, 1931b: 74, 1989a: 58; Pierce, W. D. 1917: 12; Pittioni 1943: 176; Poppius 1900: 109; Postner 1974: 424; Prossen 1913: 84; Rapp 1934: 734; Reitter 1894a: 88, 1916: 292; Roubal 1941: 267; Saalas 1913a: 68, 85, 1930: 118, 1931: 67; Sahlberg 1900: 106; Sainte-Claire & Mequignon 1938: 447; Schaufuss 1915: 1236; Schaum 1859: 96, 1862: 101; Schedl 1980a: 18, 1981b: 71; Schilsky 1909: 189; Schiodte 1873: 103; Schmaus 1960: 32; Schwerdtfeger 1981: 188; Seidlitz 1891a: 567, 1891b: 612; Stark 1926a: 335, 1926b: 103, 1926j: 126, 1927b: 89, 1931a: 26, 1936e: 142, 1952: 332; Stein 1868: 114; Stierlin 1895: 446; Strand 1946: 600; Tredl 1907: 18; Wachtl 1876a: 460; Wichmann 1909b: 173, 1927a: 69; Winter, T. G. 1983: 9; Yanovskii & Tegshzhargal 1985: 415; Zinovjev 1955: 187, 191; Zúmr 1983b. **(tx)** Balachowsky 1949a: 181; Barbey 1901: 27, 101; Chorbadzhievo 1924d; Dombrowsky 1887, 1888; Duffy 1953; Eggers 1910f: 560–561, 1911a: 121–122, 1912: 49, 1923: 163, 1933f: 8–9, 1940f: 44; Eichhoff 1864: 38, 1868d: 419, 1876a: 378–379, 1878b: 288, 1881a: 52, 262, 1883a: 114, 140; Endrodi 1957a, 1957b; Escherich 1923b: 487; Ferrari 1867a: 27, 29, 1867b: 114; Fleischer 1927; Gebien 1907: 197; Georg 1856: 59; Gillanders 1908; Grune 1979: 90, 91; Hagedorn 1904e, 1910a: 96; Hansen, V. 1956, 1964: 460; Harold 1875; Henschel 1876a: 240, 1895a: 188; Hopkins 1915b: 49; Jacquelin du Val & Fairmaire 1868: 112; Kuhn 1913: 1059; Lacordaire 1866: 383; Lindemann 1881a: 237; Lovendal 1889b: 67, 1890c: 211, 1898: 177; Lucht 1987: 277; Murayama 1933a: 7, 1957c: 607; Nunberg 1929c: 121, 1954: 57; Perris 1866: 195–196; Pfeffer 1932b: 20, 1942a: 16, 1955a: 172; Portevin 1935: 327; Postner 1974: 424; Quaschik 1953: 35; Reitter 1894a: 88, 1913a: 78, 1916: 292; Rumbler 1922: 326, 1927: 343; Rye 1874: 299; Saalas 1913a: 68, 85, 1949: 342, 374; Schedl 1934f: 1642, 1980a: 18, 1981b: 71; Schimitschek 1937c: 53, 1955c: 84; Seidlitz 1891a: 567, 1891b: 612; Sharp 1870: 256; Sokanovskii 1930: 801; Spessivtsev 1913a: 93–94, 1921: 53, 1922a: 474, 492, 1925a: 175, 1925b: 31; Stark 1952: 332; Stierlin 1898: 446; Stresemann et al. 1986: 351. **(ms)** Eichhoff 1868d: 419; Escherich 1932b; Schimitschek 1930b: 407.
- marshami* Rye 1869: 188 (*Tomicus*). Syntypes, sex?; Prestwich, England; not located. Synonymy: Sharp 1870: 256.
References: **(ds)** Gemminger & Harold 1872: 2689; Rye 1869: 187–188; Sharp & Fowler 1893: 34. **(tx)** Eichhoff 1876a: 378; Sharp 1870: 256.
- similis* Eggers 1911a: 121. Holotype, sex?; Vizzavona, Corsica; Leonhard Collection. Synonymy: Balachowsky 1949a: 181.
References: **(ds)** Kleine 1913b: 136, 1934a: 155; Sainte-Claire 1914: 474; Schaufuss 1915: 1236. **(tx)** Balachowsky 1949a: 181; Eggers 1911a: 121–122, 1933f: 9; Endrodi 1957b: 417; Portevin 1935: 327; Reitter 1913a: 78; Schedl 1934f: 1643.
- leonhardi* Eggers 1912a: 49. Syntypes 2, sex?; Bulgaria; Eggers Collection, in NHMW, Wien. Synonymy: Sokanovskii 1930: 801.
References: **(cn)** Chorbadzhievo 1929. **(hb)** Chorbadzhievo 1929; Tschorbadjiev 1929: 167. **(ds)** Buresh & Lazarov 1956; Chorbadzhievo 1929; Kleine 1913b: 136; Murayama 1957c: 607; Pfeffer 1936: 90; Schaufuss 1915: 1236; Tschorbadjiev 1929: 167; **(tx)** Eggers 1912a: 49, 1933: 9; Murayama 1957c: 607; Reitter 1913a: 78; Schedl 1934f: 1642, 1979c: 183; Sokanovskii 1930: 801.
- ater* Eggers 1925: 157. Holotype, sex?; Tenasserim; Prague Museum.
Distribution: Asia (Burma).
References: **(ds)** Murayama 1957c: 607. **(tx)** Eggers 1925: 157; Murayama 1957c: 607.
- autographus* (Ratzeburg) 1837: 160 (*Bostrichus*). Syntypes, sex?; Südlichen Deutschland (Hr. Warnkönig) bis Russland und Schweden; not located.
Figures: Balachowsky 1949a: 178–179, Bevan 1987: 113, Bright 1963: 112, Chararas 1962c: 412, Grune 1979: 90, Joly 1976b: fig. 141, Kusch 1967: 10, Li, Shi, & Ao 1984: 265, Nobuchi 1966d: pl. 2, Pfeffer 1989a: pl. 7.
Distribution: Africa (Algeria/ Madeira Island),

Asia ("Manchuria", Shanxi in China/ Japan/ Korea/ Taiwan/ Sakhalin Island, Siberia in E USSR), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Netherlands/ Norway/ Poland/ Romania/ Spain/ Sweden/ Switzerland/ W USSR), North America (Alaska/ Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland, Northwest Territories, Ontario, Quebec, Saskatchewan, Yukon in Canada/ California, Colorado, Maine, Michigan, Minnesota, Montana, Nevada, New Hampshire, New Mexico, New York, North Carolina, Oregon, Pennsylvania, South Dakota, Tennessee, Utah, Virginia, Washington, West Virginia, Wisconsin, Wyoming in USA), South America (introduced into Brazil).

Hosts: *Picea* spp., *Pinus* spp., *Abies* spp., *Larix* spp., *Pseudotsuga menziesii*, *Tsuga heterophylla*.

Notes: (1) The North American population is statistically distinguishable from that of Europe and Asia (SLV). (3) Karpinski 1948: 148 (used *polonicus*, apparently as a nomen nudum, synonymy by Nunberg 1956: 161).

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villosus Herbst 1793: 121. Syntypes, sex?; Dentscher; not located, preoccupied by Fabricius 1792.

Notes: (1) This name was based on a misidentification of the species named by Fabricius 1792. It is probable that many of the following citations refer to the species of Fabricius.

References: (ay) Escherich 1923b: 487. (cn) Barbey 1925: 422; Eckstein 1926: 579; Escherich 1923b: 487; Gabler 1955; Grandi 1951; Hartig 1811: 320, 330, 1820: 320, 330, 1832:

280, 287, 1861: 325, 1877: 194; Houba 1913: 252; Jaensch 1938: 50; Kleine 1932a: 302; Kollar 1840: 255; Koppen 1882: 237, 260; Rhumbler 1927: 342; Schimitschek 1937c: 53, 1944a: 174; Schwerdtfeger 1957a: 182; Souphieff & Scherbinovskaja 1937: 14; Wachtl 1901: 381; Weber, H. 1926: 579. (cc) Belanowskii 1930; Elliot & Morley 1907; Galoux 1947d; Györfi 1952b; Hartig 1832: 280, 287; Hinton 1945: 222; Hubault 1923a; Jamnicky 1957b: 20; Kleine 1908c: 217, 1909a: 49, 77, 1944: 75; Nosek 1959b: 87; Nunberg 1930: 204; Pfeffer 1923a: 331; Schwerdtfeger 1944a: 174, 1957a: 182; Sedlaczek 1935a: 162; Sitowski 1930: 3; Stanmer 1934: 198; Wichmann 1955a: 102. (hb) Altum 1881c: 308, 1894; Bach 1864; Barbey 1901: 27, 101, 1925: 422; Dallimore & Munro 1922; Dombrowsky 1887, 1888; Eckstein 1889, 1926: 579; Eichhoff 1881a: 52, 264; Escherich 1923b: 487; Everts 1903: 766; Fisher 1936a; Fuchs 1904a; Gabler 1955; Gillanders 1908; Girard 1873; Grandi 1951; Györfi 1957; Hagedorn 1903d; Hartig 1811: 320, 330, 1820: 320, 330, 1832: 280, 287, 1861: 325, 1877: 194; Henschel 1876a: 207, 240, 1895a: 188; Jaensch 1938: 50; Janson 1867; Karpinski 1933b: 29; Karpinski & Strawinski 1948: 156; Karsch 1883: 142; Kleine 1932a: 302; Kollar 1840: 255; Lengerken 1939: 64, 1954: 84; Marcu 1927b: 425; Munro 1926: 70; Nordlinger 1855: 184, 1856: 24, 1869: 233; Nosek 1959b: 87; Nusslin 1898: 283; Palm 1953a: 15; Rhumbler 1927: 342; Schwerdtfeger 1944a: 174, 1957a: 182; Sedlaczek 1935a: 162; Stark 1952: 330; Taschenberg 1880: 232; Wachtl 1876a: 460, 1901: 381; Weber, H. 1926: 579; Zocchi 1959: 103. (ds) Acloque 1896; Andersch 1851; Audras & Schaefer 1957; Barthe 1896; Bau 1888; Bielz 1851, 1887; Blanchere & Robert 1889; Brancsik 1906; Buck 1955; Calver 1884, 1893; Carpentier & Delaby 1908; Crotch 1863; Dallimore & Munro 1922; Debatisse 1945; Duftschmidt 1825; Eggers 1904, 1912f; Endrodi 1958b; Ericson & Sandin 1893; Escalera 1919; Escherich 1923b: 487, 1932b; Eyquem 1891; Fauvel 1897; Favre 1890; Fisher 1936a; Forster 1849: 439; Fowler 1891; Fricken 1889: 351; Fuchs 1904a, 1905a; Gumbil 1849: 126; Gemminger & Harold 1872: 2687; Gozis 1875: 80; Grill 1895: 312; Gyllenhal 1827: 624; Hagedorn 1903a, 1910d: 67; Hansen, V. 1939, 1956; Heinemann 1908a; Hellen 1947; Hennig 1954: 265; Henschel 1895a: 188; Heyden 1876: 301, 1879: 140; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 713; Horion 1951; Hubault 1923b; Janson 1940: 63; Jazentkovsky 1912: 292; Johnson & Halbert 1902: 819; Joy 1923: 278; Kaltenbach 1874: 623–624, 646; Karpinski 1932b: 54, 1933b: 29; Karpinski & Strawinski 1948:

- 156; Kestercanek 1881a: 12; Kleine 1912a: 262, 268, 1913a: 35, 1913b: 136, 1914a: 16, 22, 1932a: 302, 1934a: 155; Kloft & Hinks 1945: 218; Koltze 1901: 154; Koppen 1882: 237, 260; Koschitsky 1900: 83; Kraatz 1869: 59; Kurir 1957c: 22; Lacordaire 1866: 381; Langhoffer 1915c: 158; Lentz 1857: 137; Lonnicki 1913b: 148; Lundblad 1958: 489; Marcu 1927b: 425; Matthews & Fowler 1883: 42; Meinert 1887: 70; Mirzoian 1950: 140; Mjoberg 1903: 108; Morley 1868: 187; Murayama 1957c: 607; Nunberg 1954: 57; Nusslin 1898: 283; Oliveira 1887: 329; Ortzen 1886: 280; Pachet 1853: 49, 1865: 152; Palm 1953a: 15, 1955a: 142, 1959: 28; Perris 1876a: 253, 255, 1877a: 415, 1877c: 415; Pfeffer 1928b: 7, 1931b: 73; Pittioni 1943: 176; Ragusa 1924: 117; Rapp 1934: 734; Ratzeburg 1837: 130, 1839: 157; Redtenbacher 1858: 836, 1874: 350; Reitter 1869b: 155, 1894a: 88, 1916: 292; Roubal 1941: 268; Sainte-Claire 1914: 474; Sainte-Claire & Mequignon 1938: 447; Schaschl 1854: 133; Schaufuss 1915: 1235; Schaum 1859: 96, 1862: 101; Schilsky 1909: 189; Schiodte 1873: 103; Schmitz 1898: 157; Schnaider 1936: 366; Schneider & Leder 1877: 55; Seidlitz 1891b: 613; Souphieff & Scherbinovskaja 1937: 14; Sparre-Schneider 1889: 61; Stark 1926b: 103, 1927b: 89, 1952: 330; Stein 1868: 114; Stein & Weise 1877: 165; Stephens 1829a: 144, 1830: 356, 1839: 206; Stierlin 1898: 446; Stierlin & Cantard 1871: 293, 1906: 206; Sturm 1826: 102, 1843: 230; Swaine 1909: 103; Thomson 1865: 371, 1868: 223; Tredl 1907: 18; Villa & Villa 1833: 26; Wachtl 1876a: 460; Westhoff 1882: 240; Wichmann 1927a: 69, 1955a: 102; Wollaston 1854: 290, 1857: 96; Zetterstedt 1840: 193; Zocchi 1959: 103. **(tx)** Aeloque 1896; Altman 1844; Bach 1854, 1864; Barbey 1901: 27, 102; Carpentier & Delaby 1908; Dombrowsky 1887, 1888; Duffy 1953; Duftschmidt 1825; Eggers 1911a, 1912f; Eichhoff 1864b: 39, 1866: 277, 1878b: 284, 289, 1878c: 165, 1881a: 52, 262, 264; Endrodi 1957b; Escherich 1923b: 487; Everts 1903: 766; Fabricius 1792: 367, 1801: 391; Fauvel 1887, 1889; Ferrari 1867: 27, 29, 1867b: 114; Fleischer 1905, 1927; Formanek 1907: 50; Fricken 1889: 351; Gabler 1955; Gebien 1907: 197; Gillanders 1908; Girard 1873; Gyllenhal 1813: 361, 1827: 624; Hagedorn 1910a: 96; Hansen, V. 1956; Henry 1892: 10; Henschel 1876a: 207, 240, 1895a: 188; Herbst 1793: 121; Hopkins 1915b: 49; Jablonsky 1785: 121; Jacquelin du Val & Fairmaire 1868: 107, 112; Karpinski & Strawinski 1948: 156; Kuhnt 1913: 1059; Lacordaire 1866: 381; Letzner 1891: 377; Leunis 1886: 181; Lovendal 1889b: 67, 1898: 178; Lucas 1920: 250; Marsham 1802: 53; Murayama 1957c: 607; Nordlinger 1848: 241, 1856: 24; Nunberg 1954: 57; Nusslin 1911a: 60; Panzer 1795a: 287; Paykull 1800: 154; Pfeffer 1932b: 20; Qnaschik 1953: 35; Ratzeburg 1837: 130, 1839: 157; Redtenbacher 1849a: 358, 790, 851, 1849b: 26, 1858: 836, 1874: 350; Reitter 1894a: 88, 1899: 286, 1913a: 77, 1916: 292; Rhumbler 1922: 326, 1927: 342; Rupertsberger 1880: 231; Schedl 1934f: 1643, 1952f: 87; Schimitschek 1937c: 53; Schlechtendal & Wunsche 1879: 126; Seidlitz 1891b: 613; Stark 1952: 330; Stephens 1829a: 144, 1829b: 12, 1830: 365, 1839: 206; Stierlin 1898: 446; Swaine 1909: 103; Taschenberg 1880: 232; Thomson 1865: 371, 1868: 223; Wollaston 1854: 290, 1857: 96, 1865: 237; Zetterstedt 1840: 193. **(ms)** Escherich 1932b; Hartig 1834: 109; Heinemann 1908a; Lucas 1920: 250.
- septentrionis* Mannerheim 1843: 298 (reprint p. 126) (*Bostrichus*). Syntypes, sex?, Sitka Island, Alaska; MZU, Helsinki, lost, not at Helsinki Museum. Synonymy: Bedel 1888b: 416, Bright 1963: 108.
- Notes: (3) The North American population of this species is statistically distinguishable from that of Europe and Asia, but it is not recognized here in nomenclature because of the confusion any change might cause. A change would impact the name *septentrionis*. Additional research is needed (SLW).
- References: **(cn)** Chamberlin 1924; Doane et al. 1936; Lyons 1956: 600; Swaine 1918a: 129, 131. **(ce)** Ross, D. A. 1967, 1968. **(hb)** Balachowsky 1948; Chamberlin 1939: 466, 1958: 190–191; Doane et al. 1936; Harrington 1891: 26; Lyons 1956: 600; Swaine 1918a: 129, 131. **(ds)** Balachowsky 1948; Beaulne 1956; Chamberlin 1925, 1939: 466, 1958: 190–191; Cockerell et al. 1907; Dejean 1837; Fall 1906: 202; Fall & Cockerell 1907: 217; Gemminger & Harold 1872: 2687; Hamilton 1889: 159; Harrington 1890: 189, 1891: 26, 1894: 16; Henshaw 1885: 148; Hopkins 1893a: 137, 1893b: 211; Hopping 1922; Hubbard & Schwarz 1878a: 643, 666; Keen 1929: 42; Kleine 1934a: 155; Leng 1920: 342; Mank 1934: 81; Melsheimer 1853: 87; Murayama 1957c: 607; Pfeffer 1935: 158; Provancher 1877: 568; Ross, D. A. 1967, 1968; Schwarz 1886: 42; Stein 1868: 114; Swaine 1909: 102; Van Dyke 1924: 26; Wickham 1896a: 309. **(tx)** Balachowsky 1948; Bedel 1888b: 416; Bright 1963: 108; Chamberlin 1939: 466, 1958: 190–191; Eichhoff 1876a: 378, 1878b: 284, 1881a: 262; Fall 1926: 208; Ferrari 1867a: 75; Hopkins 1915b: 50, 1915c: 211; Keen 1929: 42; LeConte 1857: 22, 1868: 161, 1876: 361; Mannerheim 1843: 298 (reprint p. 125), 1852: 359, 1853: 235; Murayama 1957c: 607; Provancher 1877: 568; Schwarz 1886: 42; Swaine 1909: 102, 1915: 361, 1918a: 129, 131; Wood, S. L. 1969c: 115.

semicastaneus Mannerheim 1852: 358 (reprint p. 76) (*Bostrichus*). Holotype, sex?, Sitka Island, Alaska; MZU, Helsinki. Synonymy: LeConte 1868: 161.

References: **(cn)** Packard 1890: 860. **(hb)** Chittenden 1890; Packard 1890: 860. **(ds)** Chittenden 1890; Leng 1920: 342; Stein 1868: 114; Swaine 1909: 103. **(tx)** Bedel 1888b: 416; Eichhoff 1878b: 284; Hamilton 1888: 159; LeConte 1857: 22, 1868: 161, 1876: 361; Mannerheim 1852: 358; Swaine 1909: 103; Wood, S. L. 1969c: 115.

victoris Mulsant & Rey 1853: 91 (*Bostrichus*). Syntypes, sex?, Faillefeu, Basses-Alpes, France; not located. Synonymy: Bedel 1888b: 416.

References: **(hb)** Wachtl 1876a: 458. **(ds)** Calwer 1884, 1893; Gemminger & Harold 1872: 2686; Schaum 1859: 96, 1862: 101; Schilsky 1909: 189; Stein 1868: 114; Stein & Weise 1877: 165; Wachtl 1876a: 458. **(tx)** Balachowsky 1949a: 179; Bedel 1888b: 416; Eichhoff 1864b: 46, 1868d: 419; Ferrari 1867: 22; Mulsant & Rey 1852: 205, 1853: 91.

americanus Hopkins 1915b: 51. Holotype ♀; Cheat Bridge, Randolph County, West Virginia [USA]; USNM, Washington. Synonymy: Chamberlin 1958: 190, Bright 1963: 108.

References: **(ay)** Thomas, J. B. 1957: 4. **(cn)** Blackman 1950; Chamberlin 1924; Doane et al. 1936; Rodary 1959: 852; Swaine 1918a: 129, 131, 1924d: 9; Swaine et al. 1924: 19; Thomas, J. B. 1958: 394. **(ec)** Blackman 1919: 90; Blackman & Stage 1918: 59; Price 1966: 241; Thompson, W. R. & Simmonds 1964: 128, 1965: 16. **(hb)** Balachowsky 1948; Blackman 1950; Chamberlin 1939: 466, 1958: 190; Doane et al. 1936; Drake 1921; Felt 1924: 271; Swaine 1918a: 129, 131, 1924d: 9; Watson 1928: 620; Wolcott & Montgomery 1933: 167. **(ds)** Anonymous 1926c: 520; Balachowsky 1948; Beaulne 1956; Blackman 1950; Blatchley & Leng 1916: 612; Chamberlin 1925, 1939: 466, 1958: 190; Dodge 1938; Drake 1921: 201–205; Hoffmann 1956: 91; Kleine 1934a: 155; Leng 1920: 342; Leonard 1928: 520; Murayama 1957c: 606; Notman 1920: 184; Proctor 1946: 208; Wolcott & Montgomery 1933: 167. **(tx)** Balachowsky 1948; Blatchley & Leng 1916: 612; Bright 1963: 108; Chamberlin 1939: 466, 1958: 190; Dodge 1938: 55; Hopkins 1915b: 50–51; Murayama 1957c: 606; Swaine 1918a: 129, 131; Thomas, J. B. 1957: 4.

pseudotsugae Swaine 1915b: 360 (reprint p. 5). Lectotype ♀; Stanley Park, Vancouver Island, British Columbia [Canada]; CNCI, Ottawa, designated by Bright 1967b: 674. Synonymy: Chamberlin 1958: 190, Bright 1963: 108.

References: **(cn)** Anonymous 1958a: 4; Doane et al. 1936; Doidge 1967: 196; Felt 1926: 247, 271; Hatch 1938: 194; Keen 1938: 125, 1952c:

163; Schuder 1969: 81; Swaine 1918a: 129–130. **(ec)** Bedard 1933a; Keen 1938: 125. **(hb)** Balachowsky 1948; Chamberlin 1939: 465, 1958: 190; Doane et al. 1936; Felt 1926: 247, 271; Keen 1938: 125, 1952c: 163; McCowan & Rudinsky 1958: 14; Swaine 1918a: 129, 130. **(ds)** Anonymous 1958a: 4; Balachowsky 1948; Bedard 1938a; Bright 1967b: 674; Chamberlin 1917, 1918: 14, 1939: 465; Felt 1926: 247, 271, 1930a: 247; Hoebeke 1978; Hopping 1922; Keen 1929: 42, 1938: 125, 1952c: 163; Kleine 1934a: 155; Leng 1920: 342; Murayama 1957c: 606; Patterson & Hatch 1945: 154; Schuder 1969: 81. **(tx)** Balachowsky 1948; Bright 1963: 108, 1967b: 674; Chamberlin 1939: 465, 1958: 190; Keen 1929: 42; Murayama 1957c: 606; de Ruelle 1970: 100; Schedl 1979c: 202; Swaine 1915b: 360, 1918a: 129–130.

alternans Eggers 1931b: 30. Holotype, sex?, Sao Paulo, Brazil; Prague Museum.

Notes: (3) The type was not seen, but the collection of *autographus* from Sao Paulo that was seen suggests an introduction and synonymy of Eggers name.

References: **(ds)** Murayama 1957c: 607. **(tx)** Eggers 1931b: 30; Murayama 1957c: 607; Schedl 1940c: 204–208.

logicollis Eggers 1941c: 121. Holotype, sex?, Lensahn, Ostholstein; USNM, Washington. Synonymy: Pfeffer 1955: 169.

References: **(ds)** Horion 1951; Murayama 1957c: 607. **(tx)** Anderson, W. H. & Anderson 1971: 18; Eggers 1941c: 121, 1944c: 143; Murayama 1957c: 607.

artepunctatus Eggers 1941b: 122. Lectotype ♂; Weissrussland (Bialowjesh); USNM, Washington, designated by Anderson & Anderson 1971: 4. Synonymy: Sokanovskii 1954: 19.

References: **(ds)** Endrodi 1958b. **(tx)** Anderson, W. H. & Anderson 1971: 4, 18; Eggers 1941b: 122; Endrodi 1957a, 1957b: 417; Numberg 1956c: 160–161, 168; Schedl 1979c: 27; Sokanovskii 1954: 19.

brasilensis Schedl 1940c: 207. Syntypes, sex?, Brazil: Sao Paulo; Schedl Collection in NHMW, Wien. Synonymy: Wood examined the NHMW, Wien, syntypes to establish this synonymy (Wood 1983 notes, p. 16).

References: **(ds)** Murayama 1957c: 607. **(tx)** Murayama 1957c: 607; Schedl 1940c: 207, 1979c: 45.

autographus sachalinensis Sokanovskii 1960: 675. Syntypes, sex?, Sakhalin Island, USSR; Sokanovskii Collection.

Notes: (1) This variety appears to be no more than an aberration that has no status in nomenclature.

References: **(tx)** Sokanovskii 1960: 675.

baikalicus Reitter 1899: 286. Holotype, sex[?]; Quellgebiet des Irkut; NHMB, Budapest.

Figures: Grune 1979: 90, Tsai & Li 1959: 92.

Distribution: Asia (Heilongjiang, "Mongolia" in China/Japan/Sakhalin Island, Siberia in E USSR), Europe (Finland/W USSR).

Hosts: *Larix* spp., *Pinus koraiensis*.

Notes: (3) Sokanovskii 1960: 675 (*ursus*, nomen nudum).

References: (bv) Grune 1979: 91; Rozhkov 1970: 141. (cn) Anonymous 1980g; Esterberg 1959; Florov 1949: 86; Kontkanen 1932: 62; Kurenzov 1935c: 188, 1956a: 87; Nestertschuk 1930: 173. (cc) Kostin 1964: 109; Kurenzov 1934a: 50; Rudnev 1958: 372; Yanovskii 1977b. (hb) Kostin 1960: 133; Krivolutsкая 1973: 139; Kurenzov 1935a: 20, 35, 1948b: 102, 1950d: 206; Postner 1974: 425; Rimski-Korsakov et al. 1949: 300; Rozhkov 1970: 141; Stark 1952: 326; Vitomskii 1928a: 178. (ds) Anonymous 1980g; Esterberg 1959; Grune 1979: 91; Hagedorn 1910d: 66; Hansen, V. 1939; Hellen 1947; Klefbeck & Sjöberg 1960: 230; Kleine 1913a: 90, 1913b: 136, 1914b: 247, 250, 1934a: 155; Kontkanen 1932: 62; Krivolutsкая 1973: 139, 1983; Kurenzov 1934a: 50, 1935a: 20, 35, 1935c: 188, 1936a: 113, 1936b: 351, 1938a: 66, 1957b: 17, 1967; Murayama 1937b: 370, 1954b: 173, 1957c: 588, 601, 607; Nestertschuk 1930: 675; Nuorteva 1971: 71; Postner 1974: 425; Rimski-Korsakov et al. 1949: 300; Rozhkov 1970: 141; Sawamoto 1940a: 96, 101; Schedl 1969a: 202; Semenov 1904: 38; Sokanovskii 1960; Stark 1931a: 21, 25, 1931d: 547, 1952: 326; Strand 1946: 600; Yanovskii 1974, 1977a; Yanovskii & Dmitrienko 1983a; Yanovskii & Tegshzhargal 1985: 409; Yin, Huang, & Li 1984: 146; Zinovjev 1955: 191. (tx) Balachowsky 1948: 168; Eggers 1928d: 174; Grune 1979: 90–91; Hagedorn 1910a: 96; Krivolutsкая 1958: 159; Kurenzov 1941a: 165, 1948b: 102, 1950: 206; Murayama 1937b: 370–371, 1954b: 173, 1957c: 588, 601, 607; Postner 1974: 425; Reitter 1899: 286, 1913a: 76; Sawamoto 1940a: 96, 101; Schedl 1934f: 1642; Semenov 1904: 38; Sokanovskii 1960: 675; Spessivtsev 1931: 51; Stark 1952: 326; Tsai & Li 1959: 92; Yin, Huang, & Li 1984: 146.

betulae Hopkins 1915b: 50. Holotype ♀; Grant County, Virginia [USA]; USNM, Washington, automatic.

Figures: Bright 1963: 112 (male genitalia).

Distribution: North America (Alberta, British Columbia, Newfoundland, New Brunswick, Ontario, Quebec in Canada/ District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maine, Maryland, Michigan, Mississippi, Montana, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Vermont, Virginia, Washington, West Virginia in USA).

Hosts: *Betula lenta*, *B. lutea*, *B. papyrifera*, rare in *Fagus grandifolia*, *Liquidambar styraciflua*.

References: (ay) Bright 1963: 106; Thomas, J. B. 1967. (bv) Baker, W. L. 1972: 263; Hosking & Knight 1975. (cn) Blackman 1950; Chamberlin 1924; Connola et al. 1956; Doane et al. 1936; Felt 1926: 247, 271; Hopkins 1904a: 25; Keen 1938: 132, 1952c: 169; Lindquist, O. H. & Syme 1981: 40; Swaine 1918a: 130–131; Syme & Nystrom 1988: 40. (cc) Felt 1906: 468; Hough 1963; Keen 1938: 132; Thompson, W. R. & Simmonds 1964: 128, 1965: 16. (hb) Baker, W. L. 1972: 263; Beal & Massey 1945: 159–160; Blackman 1922b: 120–121, 1950; Bright 1963: 109; Chamberlin 1939: 466; Doane et al. 1936; Felt 1906: 468, 1926: 247, 271; Hopkins 1904a: 25; Keen 1938: 132, 1952c: 169; Swaine 1918a: 130, 131; Wood, S. L. 1982b: 727. (ds) Anonymous 1926c: 520; Atkinson et al. 1991: 159; Beal & Massey 1945: 159–160; Beaulne 1956; Blackman 1922b: 120–121, 1950; Blatchley & Leng 1916: 611; Bright 1963: 109, 1971b: 126, 1976d: 127; Chamberlin 1939: 466; Dodge 1938: 15; Drake 1921: 204; Drooz 1985: 362; Felt 1926: 247, 271, 1930a: 247; Furniss, M. M. & Johnson 1987: 376; Furniss, R. L. & Carolin 1977: 380; Gast et al. 1989: 385; Hopkins 1893a: 137; Hopping 1922: 128–134; Hough 1963: 572–579; Keen 1929: 42, 1938: 132, 1952c: 169; Kirk 1970; Kleine 1934a: 155; Knoll 1932: 67; Leng 1920: 342; Leonard 1928: 520; Lindquist, O. H. & Syme 1981: 40; Martineau 1948: 379; Murayama 1957c: 606; Nash 1951: 46; Patterson & Hatch 1945: 154; Proctor 1946: 208; Syme & Nystrom 1988: 40; Wood, S. L. 1972a: 416, 1982b: 727. (tx) Beal & Massey 1945: 159–160; Benoit 1985: 95; Blackman 1922b: 120–121; Blatchley & Leng 1916: 611; Bright 1963: 108–109, 112, 1976d: 127; Chamberlin 1939: 466; Dodge 1938: 15; Hopkins 1915b: 50; Keen 1929: 42; Lindquist, O. H. & Syme 1981: 40; Murayama 1957c: 606; Pardy 1974, 1977, 1983; Swaine 1915: 361, 1918a: 130–131; Syme & Nystrom 1988: 40; Titus, Meikle, & Harrison 1985: 59; Thomas, J. B. 1967; Wood, S. L. 1972a: 416, 1982b: 727.

eichhoffi Hopkins 1894: 279 (reprint p. 5). Holotype ♀; Grant County, Virginia [USA]; USNM, Washington, preoccupied by Ferrari 1867.

References: (ay) Hopkins 1894g. (hb) Felt 1906: 336–337; Hewitt 1914: 501–518; Hopkins 1894g, 1904b: 320. (ds) Gemminger & Harold 1872: 2687; Hagedorn 1910d: 67; Henshaw 1895: 44; Kleine 1913b: 136; Leng 1920: 342; Swaine 1909: 103. (tx) Eichhoff 1868d: 419, 1878b: 297; Hagedorn 1910a: 96; Hopkins 1894: 279, 1915b: 50–51; Schedl 1939b: 394; Swaine 1909: 103, 1912: 351–353, 1918a: 131. (ms) Eichhoff 1868d: 419.

liquidambaris Hopkins 1915b: 51. Holotype ♂; Virginia Beach, Virginia [USA]; USNM, Washington. Synonymy: Blackman 1922b: 120.

References: **(cn)** Blackman 1950; Doane et al. 1936; Swaine 1918a: 131. **(hb)** Blackman 1950; Chamberlin 1939: 467; Doane et al. 1936; Swaine 1918a: 131. **(ds)** Blackman 1922b: 120–121, 1950; Blatchley & Leng 1916: 612; Chamberlin 1939: 467; Kleine 1934a: 155; Leng 1920: 342. **(tx)** Blackman 1922b: 120–121; Blatchley & Leng 1916: 612; Chamberlin 1939: 467; Hopkins 1915b: 50–51; Swaine 1918a: 131.

brevipilosus Murayama 1957c: 604. Holotype ♂; Mt. Manza, Gumma pref., Japan; USNM, Washington.

Figures: Nobuchi 1966d: pl. 2.

Distribution: Asia (Japan).

Hosts: *Tsuga diversifolia*.

References: **(ds)** Murayama 1957c: 588, 601, 604; Nobuchi 1966b: 19. **(tx)** Murayama 1957c: 588, 601, 604; Nobuchi 1966b: 19, 1966d: pl. 2.

* **carbonarius** Scudder 1890: 470. Holotype, sex?; Greenriver, Wyoming [USA], Oligocene; not located.

Figures: Scudder 1890: pl. 8, fig. 6.

Distribution: North America (fossil in Wyoming Oligocene in USA).

Notes: (1) The divided eye is not characteristic of *Dryocoetes*, but suggests affiliation with *Dolurgocleptes*; however, a change in generic placement is not suggested.

References: **(ds)** Handlirsch 1908; Hopkins 1900a: 65. **(tx)** Scudder 1890: 470.

carpini Eggers 1942c: 32. Holotype, sex?; Ussuri, von Lubarkyi; Eggers Collection and Strohmeier Collection, Eberswalde.

Distribution: Asia (E USSR).

Hosts: *Carpinus cordata*.

References: **(cn)** Kurenzov 1935c: 187. **(cc)** Kurenzov 1934a: 52. **(hb)** Kurenzov 1935a: 19, 34, 1948b: 114; Stark 1952: 329. **(ds)** Krivolutsкая 1983; Kurenzov 1934a: 52, 1935a: 19, 34, 1935c: 187, 1936b: 350, 1965; Stark 1952: 329. **(tx)** Eggers 1942c: 32; Kurenzov 1941a: 167, 1948b: 114; Michalski 1969b: 569; Pfeffer 1944a: 131; Schedl 1979c: 54; Stark 1951: 229, 1952: 329. **(ms)** Pfeffer 1944a: 131.

carpini Stark 1952: 329. Lectotype, sex?; USSR: Maritime Province; IZL, Leningrad, designated by Michalski 1969a: 894. Synonymy: Stark 1951: 229.

References: **(tx)** Michalski 1969a: 894; Stark 1951: 229, 1952: 329.

carpinivorus Choo & Woo 1989: 58. Holotype ♀; Korea: Mt. Hanla, Jeju province; Choo Collection?

Figures: Choo & Woo 1989: 60.

Distribution: Asia (Korea).

Hosts: *Carpinus laxiflora*.

References: **(tx)** Choo & Woo 1989: 58.

caryi Hopkins 1915b: 50. Holotype ♀; Camp Caribon, Maine [USA]; USNM, Washington.

Distribution: North America (Alaska/ Alberta, British Columbia, Quebec in Canada/ Maine, New York, North Carolina, Wyoming in USA).

Hosts: *Picea engelmannii*, *P. glauca*, *P. rubra*.

References: **(bv)** Baker, W. L. 1972: 264. **(cn)** Swaine 1918a: 133. **(hb)** Baker, W. L. 1972: 264; Chamberlin 1939: 468; Swaine 1918a: 133. **(ds)** Blatchley & Leng 1916: 611; Bright 1963: 108, 114, 1976d: 130; Chamberlin 1928, 1939: 468; Drooz 1985: 362; Furniss, R. L. & Carolin 1977: 380; Kleine 1934a: 155; Leng 1920: 342; Murayama 1957c: 606; Wood, S. L. 1972a: 417, 1982b: 730. **(tx)** Blatchley & Leng 1916: 611; Bright 1963: 114, 1976d: 130; Chamberlin 1939: 468; Hopkins 1915b: 49–50; Murayama 1957c: 606; Swaine 1918a: 133; Wood, S. L. 1972a: 417, 1982b: 730.

cerasi Eggers 1942c: 32. Holotype, sex?; Ussuri (Cyran), USSR; Eggers Collection (not listed by Anderson & Anderson 1971 or Schedl 1979c).

Distribution: Asia (E USSR).

Hosts: *Cerasus maximowiczii*.

References: **(cn)** Kurenzov 1935c: 188. **(cc)** Kurenzov 1934a: 52. **(hb)** Kurenzov 1935a: 20, 34. **(ds)** Kurenzov 1934a: 52, 1935a: 20, 34, 1935c: 188, 1936b: 351. **(tx)** Eggers 1942c: 32; Michalski 1969b: 569; Pfeffer 1944a: 131; Sokanovskii 1954: 19; Stark 1950: 229. **(ms)** Pfeffer 1944a: 131.

cerasi Stark 1950: 229. Holotype (?); Ussuri (?); nomen nudum (?).

Notes: (1) Stark 1950: 229 cites *cerasi* Eggers as a junior synonym, but we have found no evidence that Stark's name was ever published.

References: **(ds)** Murayama 1957c: 588, 599.

(tx) Murayama 1957c: 588, 599; Stark 1950: 229.

confusus Swaine 1912a: 351. Holotype ♂; Colorado [USA]; Cornell University Collection, Ithaca, New York.

Figures: Bright 1963: 112, Doidge 1981: 2–3, Kusch 1967, Ryker & Rudinsky 1979: 204.

Distribution: North America (Alberta, British Columbia in Canada/ Arizona, Colorado, Idaho, Montana, New Mexico, Oregon, Utah, Washington, Wyoming in USA).

Hosts: *Abies lasiocarpa*, uncommon in *A. amabilis*, *A. concolor*, *Picea engelmannii*.

References: **(ay)** Bright 1963: 110; Farris 1969: 27–32; Thomas, J. B. 1967. **(bv)** Borden et al. 1987; Bright 1963: 110; Kolmle & Vite 1984b; Stock & Borden 1983. **(cn)** Andrews & Erickson 1973b: 14; Andrews & Monts 1977: 5, 1978: 3; Andrews & Vandervel 1971: 4; Anonymous 1955j: 10, 1960g: 12, 1960q, 1961h, 1961s, 1963e: 17, 1963y, 1982b; Bauman 1967: 174, 1968: 193, 1969: 158; Beddows 1968: 217, 1969: 192; Bennett 1983; Bongberg 1957, 1962; Bousfield & Carlson 1978; Bousfield, Hagle, & Kohler 1988; Brown, A. W. A. 1943: 7; Brown, C. E., Hopkins, & Robins 1960: 86; Brown, C. E., Robins, & Stevenson 1962: 98; Byler et al. 1986; Cahill & Lister

- 1971; Chamberlin 1924; Chrystal 1949b: 3–11; Cottrell 1967: 98, 1973: 8; Cottrell & Doidge 1972: 5; Cottrell & Erickson 1977: 4, 1978: 4; Cottrell & Fiddick 1962, 1968, 1971: 4, 1972; Cottrell, Unger, & Fiddick 1979: 26; Doane et al. 1936; Doidge 1967: 196, 1968: 119, 1969: 107, 1972: 5, 1973a: 7, 1975: 8, 1976: 6, 1981; Doidge & Koot 1978: 5, 1979: 6–7; Erickson & Wood 1979: 6; Evans, D. 1949: 108; Evenden 1924; Fiddick, Harvey, & Silver 1966; Fiddick & Van Sickle 1982: 17; Fuller & Hostetler 1980; Fuller & Johnson 1985; Geistlinger 1967: 127, 1968: 133, 1969: 126; Gibson et al. 1987; Gilman & Bailey 1978: 9; Grant, J. 1967b: 187, 1968b: 207, 1969b: 183; Grant, J., Lund, & Beddows 1970: 3; Hagle et al. 1987: 44; Hatch 1938: 194; Helzner & Moyer 1979; Hewitt 1920: 16; Hofacker & Loomis 1982: 3, 1983: 3; Hofacker, Loomis, & Gilstrap 1988: 18; Hofacker, Loomis, & Tucker 1984: 6, 1987; Hofacker et al. 1989; Hopping, G. R. 1937: 64, 1946: 3–8, 1951: 74; Hopping, R. 1934; James & Coheen 1981; James & Linnane 1979, 1980: 13; Johnson, D. W. & Averill 1983; Johnson, D. W. & Creasap 1978a, 1978b: 18; Johnson, D. W. & Curtis 1986; Johnson, D. W. & Minnemeyer 1976, 1977: 33; Keen 1938: 125, 1952c: 163, 168; Kendrick & Molnar 1965: 39–43; Klein, W. H. 1968; Klein, W. H. & McGregor 1966; Klein, W. H. & Parker 1970: 17; Knopf, J. 1981; Kohler, Dooling, & Bousefield 1985; Kondo & Moody 1987: 112; Kondo & Taylor 1985: 63; Leech 1946: 81, 1947: 59; Lindgren 1980a: 63; Linnane 1984; Lister & Cahill 1970: 23; Lister & Hildebrand 1984; Loomis, Hofacker, & Tucker 1985: 15, 1986; Lowe & Moyer 1980; Lucht 1966: 31; Lucht & Moore 1963: 19; Lund 1967, 1968; McGregor et al. 1985; McGugan et al. 1958; Molnar 1958: 83, 1965: 563–570; Molnar, Harris, & Ross 1965: 98, 1967: 114; Molnar, Ross, & Fiddick 1971: 79, 1972: 84; Molnar et al. 1968: 116, 1969: 116, 1970: 102; Monts 1967: 79, 1968: 75, 1969: 82; Moody 1988: 86; Morris, E. V. 1967: 162, 1969: 60; Morris, E. V., Brown, & Wegwitz 1970: 4; Morris, E. V. & Monts 1972: 7, 1973a: 9, 1976: 3; Morris, E. V. & Vanderwal 1968: 172; Morris, E. V. & Wood 1978: 4; Ollieu, Stipe, & Hoffman 1980: 27; Ostmark 1956: 7; Ostmark & Wilford 1956: 6, 13; Owen 1986: 8; Prebble 1944: 48; Price 1956: 81–84; Robinson, L. A. & Dooling 1978: 11; Rogers & Hessburg 1985; Ross, D. A., Baranyay, & Fiddick 1973: 85; Ross, D. A., Van Sickle, & Wood 1981: 83; Ruppel 1967: 37; Ryker & Rudinsky 1979: 207; Schuder 1969: 75; Sharon & O'Neil 1985; Silver & Ross 1959: 88, 1960: 98, 1962b: 112, 1963a: 111, 1964b: 113, 1965a: 115; Smith, G. J., & Melvin 1974b; Sterner & Davidson 1981: 36, 1983: 50; Stock & Borden 1983; Swaine 1918a: 130–131, 1933: 25; Thier & Hoffman 1983; Tkacz 1983; Tripp, Ross, & Baranyay 1974: 82; Tripp, Ross, & Hunt 1975: 88; Tripp, Ross, & Van Sickle 1977: 81; Timnock et al. 1984; Twinn 1934: 123; Wood, C. S. & Van Sickle 1983: 23, 1987: 24, 1989: 23; Wood, C. S., Van Sickle, & Humble 1987: 23; Wood, C. S., Van Sickle, & Shore 1984: 20, 1985: 22; Wood, R. O. 1967: 14, 1969: 90; Wood, R. O. & Doidge 1971: 5, 1972: 18; Wood, R. O., Geistlinger, & Doidge 1970: 3; Wood, R. O. & Koot 1973a: 20; Yasinski & Pierce 1957: 9. (**cc**) Beal 1937a; Davidson 1958; Doidge 1981; Farris 1969; Heliovaara & Lilja 1989; Hopping, G. R. 1950c: 74; James & Coheen 1981; James, Stewart, & Williams 1984; Keen 1938: 125; Kendrick & Molnar 1965; Livingston & Berryman 1972: 1793; Massey 1964: 37–40; Molnar 1962a, 1963, 1964, 1965; Molnar & Cottrell 1960; Poinar 1975: 175; Whitney et al. 1984. (**hb**) Anderson, R. F. 1960: 241; Andrews & Monts 1977: 5; Bright 1963: 104, 1976d: 126; Chamberlin 1939: 467, 1958: 188–189; Doane et al. 1936; Doidge 1981; Evans, J. W. 1952: 140; Farris 1969; Keen 1938: 125, 1952c: 163, 165; Lindgren 1980a: 63; Mathers 1931: 247–248, 775; Molnar & Cottrell 1960: 16, 20; Ryker & Rudinsky 1979: 207; Stock & Borden 1983; Swaine 1918a: 130–131; Wood, S. L. 1982b: 727. (**ds**) Allen, S. J. 1967b: 63, 1977, 1978: 5, 1979: 5; Allen, S. J. & Wood 1973a: 5; Anderson, R. F. 1960: 241; Anonymous 1960: 12, 1963y, 1982b; Bongberg 1957; Bright 1963: 110, 1976d: 126; Brown, C. E., Hopkins, & Robins 1960: 86; Chamberlin 1925, 1939: 467, 1958: 188–189; Evans, J. W. 1952: 140; Evenden 1924; Farris 1969: 529; Furniss, R. L. & Carolin 1977: 380; Gast et al. 1989: 385; Gautreau & Melvin 1974; Hagle et al. 1987: 44; Hopping 1922; Keen 1929: 42, 1938: 125, 1952c: 163, 165; Kleine 1913b: 136, 1934a: 155; Kusch 1967; Leech 1947: 81; Leng 1920: 342; MacKay 1950: 115; Mank 1934: 81; Marchant & Borden 1976; McComb et al. 1953: 3; Murayama 1957c: 606; Ruppel 1967: 37; Schuder 1969: 75; Smith, G. J. & Melvin 1974b; Stock & Borden 1983; Susut & Melvin 1974; Thatcher 1935: 261; Wood, S. L. 1948: 70, 1951a: 128, 1972a: 416, 1982b: 727. (**tx**) Benoit 1985: 95; Bright 1963: 108, 110, 112, 1967b: 674, 1976d: 126; Chamberlin 1939: 467, 1958: 188–189; Doidge 1981: 2–3; Doidge & Koot 1978: fig. 5; Eggers 1926b: 136; Hoebeke 1978; Keen 1929: 42; Kusch 1967; Muesebeck 1942: 96, 1950: 132; Murayama 1957c: 606; de Ruelle 1970: 100; Ryker & Rudinsky 1979: 204, 207; Swaine 1912a: 351–352, 1915: 361, 1918a: 130–131; Thomas, J. B. 1967; Wood, S. L. 1951a: 128, 1972a: 416, 1982b: 727. (**ms**) Hatch 1938: 194; Prebble 1944: 48.
- abietis* Hopkins 1915b: 50, 52. Holotype ♀; Lake McDonald, Montana [USA]; USNM, Washington. Synonymy: Swaine 1918a: 131.
- References: (**ds**) Kleine 1934a: 155; Leng 1920: 342. (**tx**) Hopkins 1915b: 50, 52; Swaine 1918a: 131–132.

cristatus Inouye & Nobuchi 1959a: 122. Holotype, sex?; Nopporo Nat. Forest nr. Sapporo, Hokkaido, Japan; Nobuchi Collection, Ibaraka.

Figures: Inouye & Nobuchi 1959a: 122.

Distribution: Asia (Japan).

Hosts: *Pseudotsuga taxifolia*.

References: (tx) Inouye & Nobuchi 1959a: 122.

° **diluvialis (Wickham)** 1916: 18 (*Pityophthoridea*). Holotype, sex ?; fossil in Miocene, Florissant, Colorado [USA]; not located.

Figures: Wickham 1916: 18.

Distribution: North America (fossil in Miocene in Colorado in USA).

References: (tx) Wickham 1916: 18.

eichhoffi Ferrari 1867: 29. Syntypes 2, sex?; Graecia; NHMW, Wien.

Distribution: Europe (Greece).

Notes: (3) Reitter 1890: 175 (treated in *Lymnator*).

References: (hb) Wachtl 1876a: 460. (ds) Hagedorn 1910d: 67; Kleine 1913b: 136; Murayama 1957c: 607; Schauffuss 1915: 1236; Schilsky 1909: 189; Wachtl 1876a: 460. (tx) Eichhoff 1883a: 140; Ferrari 1867a: 29; Hagedorn 1910a: 96; Murayama 1957c: 607; Reitter 1890: 175, 1913a: 75; Schedl 1934f: 1642.

formosanus Nobuchi 1967: 18. Holotype ♂; Formosa to Nogoya Port, Japan, imported; Nobuchi Collection, Ibaraki.

Figures: Nobuchi 1967: pl. 1 (adult).

Distribution: Asia (Taiwan).

Hosts: *Picea* sp.

References: (tx) Nobuchi 1967: 11–30, pl. 1.

granicollis (LeConte) 1868: 162 (*Xyleborus*). Holotype, sex?; Sullivan Co., Pennsylvania [USA]; MCZ, Cambridge.

Figures: Bright 1963: 112 (male genitalia).

Distribution: North America (Quebec in Canada/ Arkansas, District of Columbia, Georgia, Illinois, Kentucky, Louisiana, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, E Texas, Virginia in USA).

Hosts: *Picea glauca*, rare in *Abies* sp., *Castanea* sp., *Juglans* sp..

Notes: (1) LeConte 1876: 643 (to *Dryocoetes*).

References: (ay) Bright 1963: 111; Hopkins 1894g. (bv) Baker, W. L. 1972: 264; Roling & Kearby 1975b, 1977. (cn) Chamberlin 1924; Chittenden 1897: 72; Hopkins 1899c: 251, 445; Roling & Kearby 1977; Smith, J. B. 1900: 363; Swaine 1918a: 129–130. (ce) Felt 1906: 720, 753; Roling & Kearby 1977. (hb) Baker, W. L. 1972: 264; Chamberlin 1939: 465; Deyrup & Atkinson 1987a: 65; Felt 1906: 720, 753; Hopkins 1894g, 1899c: 251, 445; Swaine 1918a: 129–130; Wood, S. L. 1982b: 728. (ds) Anonymous 1926c: 520; Blackwelder & Blackwelder 1948; Blatchley & Leng 1916: 611; Bright 1963: 111, 1976d: 128; Chamberlin 1925, 1939: 465; Chapuis 1869; Deyrup 1981b: 6; Deyrup & Atkinson 1987a: 65; Drooz

1985: 362; Gemminger & Harold 1872: 2687; Hagedorn 1910d: 67; Henshaw 1882: 269, 1885: 148; Hopkins 1893a: 138, 1893b: 212; Hubbard & Schwarz 1878: 643; Kleine 1913b: 136, 1914b: 399, 1934a: 155; Leng 1920: 342; Leonard 1928: 520; Murayama 1957c: 606; Smith, J. B. 1900: 363, 1910: 402; Swaine 1909: 103; Ulke 1902: 56; Weber & McPherson 1991: 54; Wood, S. L. 1982b: 728. (tx) Benoit 1955: 95; Blatchley 1916: 611; Bright 1963: 108, 111–112, 1976d: 128; Chamberlin 1939: 465; Eggers 1926b; Eichhoff 1878b: 291; Hagedorn 1910a: 70; Hopkins 1894: 279, 1915b: 50; LeConte 1868: 162, 1876: 361; Murayama 1957c: 606; Schwarz 1891: 79; Swaine 1909: 103, 1918a: 129–130; Wood, S. L. 1982b: 728.

hectographus Reitter 1913a: 76. Syntypes, sex?; Transbaikien, im Quellgebiet des Irkut, und Ostkarpathen; NHMB, Budapest.

Figures: Balachowsky 1949a: 179 (adult), Li, Shi, & Ao 1984L265, Pfeffer 1989a: pl. 7, Yin, Huang, & Li 1984: 150.

Distribution: Asia ("Manchuria", Qinhai, Shanxi, Sichuan, Yunnan in China/ Japan/ Sakhalin Island, Siberia in E USSR), Europe (Bulgaria/ Czechoslovakia/ Finland/ France/ Hungary/ Norway/ Poland/ Sweden/ W USSR).

Hosts: *Picea* spp., *Pinus* spp., *Abies* spp.

References: (bv) Annala 1975: 8; Chararas & Deschamps 1962; Hellen 1921; Laumond & Ritter 1971; Novak, V. 1962b; Nuorteva 1956c: 23; Nuorteva & Nuorteva 1968; Rozhkov 1970: 141; Prell 1930c: 639, 1931: 369. (cn) Chorbadzhevo 1929; Eidmann 1965c; Esterberg 1959; Florov 1949: 90; Grandi 1951; Hellen 1921; Inouye 1955; Juntinen 1960: 30; Kurenzov 1935c: 189; Marcu 1926c: 64; Nilssen 1978a; Nosek 1951: 106, 1952b: 100; Novak, V. 1959b: 73; Nuorteva & Nuorteva 1968; Pfeffer 1948a: 800, 1949b: 150, 1950c: 2; Rodary 1959: 850; Saalas 1949: 342, 374; Titova 1966; Tragardh & Butovitsch 1936: 578; Wilke 1931: 669; Yanagisawa 1952: 105. (ce) Annala 1975: 11, 1977; Balazy 1964, 1968; Balazy & Michalski 1964b; Chararas 1957a, 1959c: 113–129, 1959d, 1959g: 214–233, 1960a: 31; Eidmann 1965c; Heqvist 1963: 153; Inouye et al. 1955: 63; Kielcowski 1976; Kielcowski, Moser, & Wisniewski 1983; Kielcowski & Wisniewski 1978, 1980a, 1983; Kirschenblat 1948; Kleine 1944: 71; Kosariyevskaya & Mamajev 1962: 450; Kostin 1964: 109; Krivosheina 1974; Kurenzov 1934a: 54; Michalski & Ratajczak 1989; Nishiguchi 1959: 271; Nosek 1951: 106, 1952b: 100; Novak, V. 1962b; Nuorteva 1956a: 17, 1957b: 68, 1959d: 203, 1967a, 1968a, 1970, 1971; Nuorteva & Nuorteva 1968; Pahlen 1946: 194; Pfeffer 1932a: 13, 1943b: 180, 1949b: 150, 1950c: 2, 1959: 3; Poinar 1972, 1975: 157; Rodary 1959: 850; Ruhm 1957b: 254; Ruhm & Chararas 1957: 253–269; Saalas 1917a: 18, 1930: 119, 1949: 342, 374, 1951: 15;

- Titova 1966; Wilke 1931: 669; Zinovjev 1957: 340. (**hb**) Annala 1977; Balachowsky 1948; Chararas 1962c: 415; Chorbadzhiev 1929; Grandi 1951; Heyrovsky 1929: 37–38; Inouye et al. 1955: 63; Li, Shi, & Ao 1984: 47; Karpinski 1933b: 29; Kostin 1960: 133; Krivolutskaya 1956: 832, 1960: 78, 1973: 140; Kurenzov 1935a: 35, 1948b: 100, 1950d: 207; Nilssen 1979a, 1984; Nuorteva 1956c: 23, 1967a, 1968a, 1970; Opanasenko & Kononenko 1966; Orest 1926a: 68, 73; Palm 1956: 63; Pfeffer 1941c: 5; Prell 1930c: 639, 1931: 369; Qiu & Hus 1958: 267; Rozhkov 1970: 141; Saalas 1949: 342, 374, 1951: 15; Spessivtsev 1923: 210, 1928a: 222; Stark 1952: 338; Tragardh 1939b: 158, 200; Tschorbadzhiev 1929: 167; Yang et al. 1989c; Zinovjev 1957: 340. (**ds**) Balachowsky 1948; Bistrom & Vaisanen 1988: 42; Buresh & Lazarov 1956; Chorbadzhiev 1929; Csiki 1914; Eder 1934; Endrodi 1958b; Escherich 1932b; Esterberg 1959; Hansen, V. 1939; Hellen 1923: 51, 1947; Holzschuh 1977; Horion 1935, 1951; Jacentkovsky 1939: 77; Jamnický 1960a; Kaisila 1952: 18; Karpinski 1931: 19, 28, 1933a: 290, 1933b: 29, 1948a: 175, 1948b: 230; Klefbeck & Sjöberg 1960: 230; Kleine 1934a: 155; Kono 1938b: 65, 68–69; Kono & Tamanuki 1939: 90, 93; Krausse 1925: 78; Krivolutskaya 1956: 832, 1960, 1965a: 238, 1973: 140, 1983; Kurenzov 1934a: 54, 1935a: 35, 1935c: 189, 1936a: 111, 1936b: 351, 1938a: 62, 1951b: 17; Larroche & Torossian 1971; Leclercq 1971; Li, Shi, & Ao 1984: 47; Lindberg & Saris 1952: 59; Lundberg 1974: 92; Lundblad 1950c: 115; Marcu 1926c: 64; Munster 1928: 291; Murayama 1954b: 202, 1957c: 588, 598; Nakane et al. 1963: 383; Negru 1966b: 402; Nunberg 1928b: 88, 108, 1954: 56; Nuorteva 1956b: 168, 1971: 67; Orest 1926c: 64; Palm 1946: 122, 1948a: 91, 1956: 63; Palmén 1946: 194; Pfeffer 1926a: 11, 1926b: 58, 1930b: 120, 1931b: 75, 1935: 159, 1936: 90, 1950b: 75, 1989a: 57; Platonoff 1943: 141; Reitter 1916: 351; Roubal 1927: 48, 1935b: 72, 1941: 268; Rozhkov 1970: 141; Saalas 1916: 110–116, 1917a: 18, 1930: 119, 1931: 70; Schaufuss 1915: 1236; Schedl 1980a: 18; Stark 1931a: 25, 1931d: 547, 1952: 338; Strand 1944: 600–601; Tragardh 1939b: 158, 200; Tschorbadzhiev 1929: 162; Wegelius 1960: 106; Wichmann 1927a: 68–69; Wilke 1931: 669; Yanovskii 1977a; Yanovskii & Dmitrienko 1983; Yin & Huang 1981: 564; Zinovjev 1955: 187. (**tx**) Balachowsky 1948: 168, 1949a: 179; Eggers 1914: 297–298, 1930b: 30, 1941c: 121; Endrodi 1957a: 307, 1957b; Fleischer 1927; Karpinski 1931: 19; Krivolutskaya 1956: 832, 1958: 157; Kurenzov 1941a: 168–169, 1948b: 100, 1950: 207; Li, Shi, & Ao 1984: 265; Murayama 1954b: 202, 1957c: 588, 598; Nakane et al. 1963: 383; Negru 1966b: 402; Nilssen 1979a, 1979b; Nunberg 1954: 56; Pfeffer 1932b: 20, 1941c: 5, 1947e: 6, 1955a: 179, 1989a: pl. 7; Reitter 1913a: 76, 1916: 351; Saalas 1949: 342, 374; Schedl 1934f: 1642, 1980a: 18; Sokanovskii 1930: 801–802; Spessivtsev 1922a: 473, 491, 1923: 209–210, 1925a: 175, 1925b: 31, 1928: 235, 1931: 52–53; Stark 1952: 338; Yin & Huang 1981: 564; Yin, Huang, & Li 1984: 150. (**ms**) Escherich 1932b; Heller 1921; Schimitschek 1930b: 407.
- himalayensis** Strohmeier 1908a: 161 (reprint p. 1). Holotype ♂; Kaschmir; Strohmeier Collection. Distribution: Asia (Kashmir, Uttar Pradesh in India). Hosts: *Juglans regia*, *Pyrus lanata*. References: (**ds**) Hagedorn 1910d: 67; Kleine 1913b: 136, 1914b: 271; Murayama 1957c: 607. (**tx**) Hagedorn 1910a: 96; Murayama 1957c: 607; Schedl 1934f: 1642; Strohmeier 1908a: 161.
- indicus** Stebbing 1914: 549. Syntypes 5, sex?; N-W Himalaya: Jaunsar; FRI, Dehra Dun. Distribution: Asia (Himachal Pradesh, Kashmir, Uttar Pradesh in India/ Nepal). Hosts: *Abies webbiana*, *Picea morinda*, *Pinus excelsa*. References: (**ay**) Gardner 1934b: 1–17. (**cn**) Pierce, W. D. 1917: 81; Roonwal 1954: 12; Stebbing 1914: 549. (**cc**) Beeson 1922c: 495; Stebbing 1914: 549. (**hb**) Beeson 1922c: 495; Stebbing 1914: 549. (**ds**) Beeson 1922c: 495, 1961: 287; Kleine 1934a: 155; Murayama 1957c: 607; Pierce, W. D. 1917: 81; Roonwal 1954: 12; Schedl 1973b: 210. (**tx**) Eggers 1925: 157; Gardner 1934b; Murayama 1957c: 607; Stebbing 1914: 549.
- infuscatus** Murayama 1937b: 370. Syntypes, sex?; Horyuri, Japan; USNM, Washington. Distribution: Asia (Japan/ Korea/ E USSR). Hosts: *Larix dahurica koreana*, *Pinus koraiensis*. References: (**ds**) Cho 1957; Choo 1983: 165; Choo & Woo 1985: 165; Ko 1969: 276; Murayama 1937a: 3, 1937b: 370, 1939: 143, 1942a: 56, 1948: 6, 1957c: 588, 602. (**tx**) Choo 1983: 83; Murayama 1937b: 370–371, 1957c: 588, 602.
- orientalis** Kurenzov 1941a: 169, 233. Syntypes, sex?; southern parts Soviet Far East (upper course of Suputinka River); Mountainous-Taiga Station and Zoological Institute, Academy of Science, USSR. Synonymy: Murayama 1957: 602. Notes: (3) Kurenzov 1948a: 51 (named form *orientalis pilosiusculus*, no status). References: (**hb**) Krivolutskaya 1973: 139; Kurenzov 1948a: 51, 1948b: 108, 1950d: 147; Stark 1952: 329. (**ds**) Krivolutskaya 1965a: 236, 1973: 139, 1983; Stark 1952: 327; Yanovskii & Tegshzhargal 1985: 409. (**tx**) Krivolutskaya 1958: 159; Kurenzov 1941a: 169, 233, 1948a: 51, 1948b: 108, 1950: 161; Michalski 1969a: 895, 1969b: 569; Murayama 1957: 602; Stark 1952: 327.
- italus** Eggers 1940f: 44. Holotype, sex?; Italien (Cassano Spinola, Prov. Alessandria); Solari Collection. Distribution: Europe (Italy).

Notes: This is probably a synonym of *alni*, holotype not examined by us.

References: **(ds)** Murayama 1957c: 607. **(tx)** Eggers 1940f: 44; Murayama 1957c: 607.

karamatsu Sawamoto 1940a: 97, 102. Holotype, sex?; Honshu, Japan; Ent. Inst. der Kaiserlichen Hokkaido Univ.

Distribution: Asia (Japan).

Hosts: *Larix leptolepis*.

References: **(ds)** Murayama 1954b: 173, 1957c: 588, 603; Sawamoto 1940a: 96, 102. **(tx)** Murayama 1954b: 173, 1957c: 588, 603; Sawamoto 1940a: 97, 102–104.

melaenus Eichhoff 1872a: 136. Holotype, sex?; Brasilia; Hamburg Museum, lost.

Distribution: South America (Brazil).

Notes: (3) This species obviously does not belong to this genus; it may be an *Araptus*, or possibly *Dendrocranulus*.

References: **(ds)** Gemminger & Harold 1872: 2687; Hagedorn 1910d: 67; Kleine 1913b: 136, 1914b: 336; Murayama 1957c: 607. **(tx)** Eichhoff 1872a: 136, 1878b: 287; Hagedorn 1910a: 95–96; Murayama 1957c: 607.

niijimai Nobuchi 1959a: 11. Holotype, sex?; Misono near Kutchan, Hokkaido; Nobuchi Collection, Ibaraki.

Distribution: Asia (Japan).

Hosts: *Picea jezoensis*.

References: **(tx)** Nobuchi 1959a: 11.

padi Stark 1952: 335. Syntypes, sex?; Siberia (Usurie: Sutschan); IZL, Leningrad.

Distribution: Asia (Sakhalin Island, E USSR).

Hosts: *Acer* sp., *Alnus* sp., *Echinopanax* sp., *Micromelas* sp., *Padus maaki*, *Syringa robusta*.

References: **(hb)** Kurenzov 1948b: 121; Stark 1952: 335. **(ds)** Krivolutsкая 1983; Kurenzov 1940a: 77, 1941a: 170; Murayama 1957c: 588, 599; Stark 1952: 335. **(tx)** Krivolutsкая 1958: 144; Kurenzov 1941a: 170, 1948b: 121; Murayama 1957c: 588, 599; Stark 1952: 335.

picipennis Eggers 1926b: 138. Lectotype, sex?; Jozankei (Sapporo), Japan; USNM, Washington, designated by Anderson & Anderson 1971: 138. Figures: Yin, Huang, & Li 1984: 145 (head, declivity).

Distribution: Asia (Sichuan in China/ Japan).

Hosts: *Acer mayeri*, *Salix* sp.

References: **(ds)** Murayama 1954b: 202, 1955: 99, 1957c: 588; Yin, Huang, & Li 1984: 145. **(tx)** Anderson, W. H. & Anderson 1971: 25; Eggers 1926b: 138; Murayama 1954b: 202, 1955: 99, 1957c: 588; Schedl 1934f: 1642, 1979c: 193; Yin, Huang, & Li 1984: 145.

pilosus Blandford 1894d: 92. Holotype, sex?; Nikko, Japan; BMNH, London.

Distribution: Asia (Japan).

Notes: (3) This species might belong to *Taphrotychus*, holotype not examined.

References: **(ds)** Blandford 1894c; Choo 1983: 83; Choo & Woo 1985: 165; Kleine 1913b: 136, 1914b: 258; Krivolutsкая 1983; Kurenzov 1967; Murayama 1936a: 129, 1954b: 174, 1957c: 588, 599; Nakane et al. 1963: 383; Nobuchi 1966b: 19. **(tx)** Blandford 1894d: 92; Choo 1983: 83; Murayama 1934c: 299, 1936a: 129, 1954b: 202, 1957c: 588, 599; Nakane et al. 1963: 383; Nobuchi 1966b: 19; Schedl 1934f: 1642, 1962p: 205; Stebbing 1908b: 11.

pini Niisima 1909: 152. Syntypes 5, sex?; Makkariupuri, Prov. Ishikari, Japan; Nobuchi Collection, Ibaraki.

Figures: Nakane et al. 1963: pl. 192, Nobuchi 1966d: pl. 2.

Distribution: Asia (Japan/ Korea/ Sakhalin Island in E USSR).

Hosts: *Picea* spp., *Pinus* spp., *Larix* spp., *Abies* sp.

References: **(cc)** Inouye et al. 1955: 63. **(hb)** Inouye et al. 1955: 63; Krivolutsкая 1956: 833. **(ds)** Choo, Woo, & Nobuchi 1988a: 134; Kleine 1913b: 136, 1914b: 258, 1934a: 155; Kono & Tamanuki 1939: 94; Krivolutsкая 1956: 833; Murayama 1948: 2, 1949a: 12, 1953c: 145, 1954b: 202, 1957c: 588, 602; Sawamoto 1940a: 96, 101. **(tx)** Hagedorn 1910a: 96; Inouye & Nobuchi 1959a: 122–123; Krivolutsкая 1956: 833, 1958: 160; Murayama 1954b: 202, 1957c: 588, 602; Nakane et al. 1963: pl. 192; Niisima 1909: 152; Nobuchi 1966d: pl. 2; Sawamoto 1940a: 96, 99, 101–102; Sokanovskii 1958: 39; Schedl 1934f: 1642.

pumilio Eichhoff 1878b: 295. Holotype, sex?; America meridionalis (Venezuela); Hamburg Museum, lost.

Distribution: South America (Venezuela).

Notes: (3) This species is obviously placed in the wrong genus; it may belong to *Araptus* or *Dendrocranulus*.

References: **(ds)** Hagedorn 1910d: 67; Kleine 1913b: 136, 1914b: 339; Murayama 1957c: 607. **(tx)** Eichhoff 1878b: 295; Hagedorn 1910a: 96; Murayama 1957c: 607.

pusillus Eggers 1933f: 7. Holotype, sex?; Amurgebiet; Eggers Collection, in NHMW, Wien. Distribution: Asia (E USSR).

References: **(hb)** Stark 1952: 331. **(ds)** Stark 1931e: 142, 1952: 331. **(tx)** Eggers 1933f: 7; Michalski 1969b: 569; Schedl 1979c: 206; Sokanovskii 1954: 18, 1960: 675; Stark 1952: 331.

quadrisulcatus Strohmeier 1908b: 72. Holotype, sex?; Kashmir; Strohmeier Collection.

Distribution: Asia (Kashmir, Uttar Pradesh in India).

Hosts: *Abies pindrow*, *A. webbiana*.

References: **(cn)** Roonwal 1954: 17. **(ds)** Beeson 1961: 287; Hagedorn 1910d: 67; Kleine 1913b: 136, 1914b: 271; Roonwal 1954: 17. **(tx)** Hage-

dorn 1910a: 67; Schedl 1934f: 1643; Stebbing 1908b: 11; Strohmeier 1908b: 72.

ramicola Reitter 1894a: 94. Syntypes 2, sex?; Akbes, in Syrien; NHMB, Budapest.

Distribution: Asia (Syria), Europe (Bulgaria).

Hosts: *Corylus avellana*, *Fagus orientalis*.

Notes: (3) Pfeffer 1955: 141 (treated in *Salicophilus*).

References: (bv) Grune 1979: 127. (cn) Chorbadzhiyev 1929. (hb) Chorbadzhiyev 1929; Tschorbadjiev 1929: 172. (ds) Buresh & Lazarov 1956; Chorbadzhiyev 1929; Grune 1979: 127; Hagedorn 1910d: 67; Hariri 1971: 127; Kleine 1913b: 136; Murayama 1957c: 588; Pfeffer 1936: 90; Postner 1974: 440; Reitter 1894a: 94; Schaufuss 1915: 1244; Schedl 1961b: 185; Sokanovskii 1960; Tschorbadjiev 1929: 172. (tx) Grune 1979: 127; Hagedorn 1910a: 96; Murayama 1957c: 588; Pfeffer 1955b: 141; Postner 1974: 440; Reitter 1894a: 94, 1913a: 97; Schedl 1934f: 1642; Sokanovskii 1954: 18, 1960: 675.

rotundicollis Eggers 1928d: 174. Holotype, sex?; Sudastralien (Gawler); Prague Museum.

Distribution: Australia.

Notes: (3) This species almost certainly belongs to *Cyrtogenius*.

References: (tx) Eggers 1928d: 174; Schedl 1940b: 434.

rugicollis Eggers 1926b: 137. Lectotype, sex?; Sachalin (Osawa), Japan; USNM, Washington, designated by Anderson & Anderson 1971: 28.

Figures: Li, Shi, & Ao 1984: 265, Nakane et al. 1963: pl. 192, Nobuchi 1966d: pl. 2.

Distribution: Asia (Shanxi in China/ Japan/ Kurile Islands/ Sakhalin Island, Siberia in E USSR).

Hosts: *Picea* spp., *Larix* spp., *Abies* spp., *Pinus* spp.

References: (cn) Anonymous 1980g; Inouye 1949a: 18; Inouye & Yamaguchi 1955a: 235; Kurenzov 1935c: 187. (cc) Inouye & Nobuchi 1959b: 41; Inouye & Yamaguchi 1955a: 235; Inouye et al. 1955: 63; Kamijo 1981; Kurenzov 1934a: 54; Nishiguchi 1960c. (hb) Inouye et al. 1955: 63; Krivolutskaya 1956: 832, 1973: 139; Kurenzov 1935a: 36, 1948b, 1950d: 208; Li, Shi, & Ao 1984: 47; Qiu & Huo 1958: 265; Stark 1952: 333. (ds) Anonymous 1980g; Kono 1938b: 65, 68; Kono & Tamanuki 1939: 89, 93–94; Krivolutskaya 1956: 832, 1965a: 237, 1973: 139, 1983; Kurenzov 1934a: 54, 1935a: 36, 1935c: 187, 1936a: 113, 1936b: 351, 1938a: 62, 1951b: 18, 1963b: 115; Li, Shi, & Ao 1984: 47; Murayama 1953c: 145, 1954b: 174, 1957c: 588, 599; Nakane et al. 1963: 383; Nobuchi 1966b: 20; Sawamoto 1940b: 141, 146; Stark 1952: 333; Tamanuki 1933: 1–54. (tx) Anderson, W. H. & Anderson 1971: 28; Eggers 1926b: 137, 1933a: 97; Krivolutskaya 1956: 832, 1958: 158; Kurenzov 1941a: 170–172, 1948b: 101, 1950: 208; Li, Shi, & Ao 1984: 265; Murayama 1954b: 174, 1957c: 588, 599; Nakane et al. 1963: 383, pl. 192; Nobuchi 1959a: 11, 1966b: 20, 1966d: pl. 2; Sawamoto

1940b: 141, 146–147; Schedl 1934f: 1643; Stark 1952: 333.

sechelti Swaine 1915b: 359. Lectotype ♀?; Sechelt, British Columbia; CNCI, Ottawa, designated by Bright 1967b: 674.

Distribution: North America (British Columbia in Canada/ Colorado, Idaho, Montana, Oregon, Utah in USA).

Hosts: *Abies lasiocarpa*.

References: (cn) Swaine 1918a: 129–130. (hb) Bright 1976d: 129; Chamberlin 1939: 465, 1958: 191; Swaine 1918a: 129–130; Wood, S. L. 1982b: 730. (ds) Bright 1976d: 129; Chamberlin 1939: 465, 1958: 191; Furniss, R. L. & Carolin 1977: 380; Gast et al. 1989: 385; Leng 1920: 342; Murayama 1957c: 606; Schedl 1969a: 202; Wood, S. L. 1948: 69, 1951a: 128, 1972a: 417, 1982b: 730. (tx) Bright 1963: 108, 1967b: 674, 1976d: 129; Chamberlin 1939: 465, 1958: 191; Hoebeke 1978; Murayama 1957c: 606; de Ruelle 1970: 100; Schedl 1979c: 223; Swaine 1915b: 359–360, 1918a: 129–130; Wood, S. L. 1951a: 128, 1972a: 417, 1982b: 730.

striatus Eggers 1933f: 8. Holotype, sex?; Wladiwostok; USNM, Washington.

Figures: Nakane et al. 1963: pl. 192.

Distribution: Asia (Heilongjiang in China/ Japan/ Sakhalin Island, Siberia in E USSR).

Hosts: *Abies holophylla*, *A. nephrolepis*, *A. sachalinensis*.

References: (cn) Anonymous 1980g; Kurenzov 1935c: 189. (hb) Krivolutskaya 1956: 837, 1973: 138; Kurenzov 1935a: 35, 1950d: 208; Kurenzov & Kononov 1961: 600; Stark 1952: 325. (ds) Anonymous 1980g; Kleine 1934a: 155; Krivolutskaya 1956: 837, 1973: 138; Kurenzov 1935a: 35, 1935c: 189; Kurenzov & Kononov 1961: 595; Murayama 1957c: 588, 600; Nakane et al. 1963: 383; Stark 1952: 325; Yin, Huang, & Li 1984: 147. (tx) Eggers 1933f: 8; Krivolutskaya 1956: 837, 1958: 162; Kurenzov 1941a: 170–175, 1950: 208; Kurenzov & Kononov 1961: 600; Murayama 1957c: 588, 600; Nakane et al. 1963: 383, pl. 192; Schedl 1941a: 42, 1979c: 238; Stark 1952: 325; Yin, Huang, & Li 1984: 147.

abietinus Kono & Tamanuki 1939: 90. Holotype, sex?; Sachalin (Naipuchi); not given. Synonymy: Murayama 1957c: 600.

References: (cn) Inouye 1955. (cc) Inouye et al. 1955: 63. (hb) Inouye et al. 1955: 63; Stark 1952: 326. (ds) Kono & Tamanuki 1939: 91; Murayama 1954b: 202; Stark 1952: 326. (tx) Kono & Tamanuki 1939: 90; Murayama 1954b: 192, 202; Stark 1952: 326.

suecicus Eggers 1923: 136. Holotype, sex?; Rorstrom in Schweden; Eggers Collection, in NHMW, Wien.

Distribution: Europe (Finland/ Sweden/ W USSR).

References: (ds) Hansen, V. 1939; Murayama

1957c: 607. (tx) Eggers 1923: 136, 1930b: 30, 1941c: 121; Murayama 1957c: 607; Schedl 1934g: 1643, 1979c: 245; Sokanovskii 1954: 19.

uniseriatus Eggers 1926b: 145. Holotype, sex?; Sapporo; Nobuchi Collection, Ibaraki.

Distribution: Asia (Shanxi in China/ Japan).

Hosts: *Pinus armandii*, *P. deusiflora*.

References: (ds) Kono & Tamanuki 1939: 89–94; Murayama 1954b: 202; Nobuchi 1966: 20; Yin, Huang, & Li 1984: 148. (tx) Eggers 1926b: 145; Murayama 1954b: 202; Nobuchi 1966b: 20; Sawamoto 1940: 101; Schedl 1934f: 1643; Sokanovskii 1954: 19, 1958: 39; Yin, Huang, & Li 1984: 148.

ussuriensis Eggers 1933f: 8. Syntypes, sex?; Ussuri; Stark Collection, 2 syntypes in Eggers Collection, in NHMW, Wien.

Figures: Krivolutsкая 1968: 60 (head, proventriculus).

Distribution: Asia (Sakhalin Island and E USSR).

Hosts: *Acer* spp., *Alnus fruticosa*, *A. kamtschatica*.

References: (cn) Kurenzov 1935c: 188, 1956a: 90. (hb) Krivolutsкая 1973: 139; Kurenzov 1935a: 20, 34, 1957b: 18; Kurenzov & Kononov 1961: 595. (ds) Arnoldi et al. 1955: 704; Kleine 1934a: 155; Krivolutsкая 1965: 236, 1973: 139; Kurenzov 1935a: 20, 34, 1935c: 188, 1936b: 351, 1938a: 64, 1967; Kurenzov & Kononov 1961: 595; Murayama 1957c: 588, 603; Rudnev 1958: 310–313. (tx) Eggers 1933f: 8–9; Krivolutsкая 1956: 154, 1958: 162, 1968: 60; Kurenzov 1941a: 170–174; Murayama 1957c: 588, 603; Schedl 1979c: 262.

ussuriensis rugulosus Eggers 1933f: 9. Syntypes, sex?; Ussuri, USSR; not given.

Notes: (1) An apparent aberration that was named as a variety.

References: (tx) Eggers 1933f: 9; Schedl 1979c: 262.

villosus (Fabricius) 1792: 367 (*Bostrichus*). Syntypes 2, sex?; Germaniae; UZMC, Copenhagen.

Figures: Grune 1979: 90.

Distribution: Africa (Algeria/ Canary Islands/ Madeira Island/ Tunisia), Europe (Austria/ Belgium/ Bulgaria/ Denmark/ England/ France/ Germany/ Greece/ Sardinia/ Scotland/ Sicily/ Sweden/ Switzerland/ W USSR).

Hosts: *Alnus glutinosus*.

References: (ay) Nusslin 1911a: 60. (bv) Grune 1979: 91. (cn) Anonymous 1979p; Nusslin 1913: 283; Rhumbler 1922: 326; Schimitschek 1955a: 135, 1955c: 84; Sponeck 18171: 316. (cc) Adeli 1964; Heqvist 1963: 153; Mahunka 1968; Nusslin 1927: 342; Pfeffer 1928b: 7; Pierce, W. D. 1917: 54; Poinar 1975: 157; Rondani 1873: 140; Ruhn 1956b: 4; Rypinski 1897: 61; Schimitschek 1930a: 326, 1955a: 135; Tudor 1969: 34; Woodring & Moser 1970. (hb) Adeli 1964; Budkov 1897; Budge 1949; Bukowsky 1930; Janson 1867: 91; Karpinski 1933: 52–56; Marcu 1927: 425–427;

Nusslin 1913: 282, 1927: 342; Postner 1974: 424; Ratzeburg 1837: 130, 1839: 157; Rhumbler 1922: 326; Rupertsberger 1880: 231; Schedl 1981b: 71; Schimitschek 1930a: 326, 1955a: 135; Schwerdtfeger 1981: 188; Spessivtsev 1913a: 93. (ds) Adeli 1964; Angus 1965c: 13; Anonymous 1979p; Bartindale & Bartindale 1948: 138; Bejer-Petersen & Jorum 1977: 21; Borchert 1951; Braknan 1966b: 205; Brancsik 1871; Buck 1952, 1955: 142, 1955b: 191; Budkov 1897; Bukowsky 1930; Buresh & Lazarov 1956; Chapuis & Candeze 1853; Chorbadzhevo 1924d; Chrystal 1937; Crowson 1971: 51; Crowson & Hunter 1964: 200; Dallimore & Munro 1922: 189–193; Davidson 1961: 20; Dejean 1821, 1825, 1837; Endrodi 1981: 185; Grune 1979: 91; Hagedorn 1910d: 67; Hansen, V. 1964: 460; Holzschuh 1977; Klefbeck & Sjoberg 1960: 230; Koca 1900: 116; Leclercq 1971; Lucht 1987: 277; Morley 1868: 287; Munro 1926: 4–77; Negru 1966b: 402, 1968a: 456; Normand 1937: 268; Nurnberg 1928b: 88, 109; Pfeffer 1989a: 58; Pierce, W. D. 1917: 54; Postner 1974: 424; Schedl 1963e: 155, 1967c: 71, 1971d: 426, 1971f: 146, 1980a: 18, 1981b: 71; Schedl, Lindbert, & Lindberg 1959: 24; Schilsky 1909: 189; Schwerdtfeger 1981: 188; Seidlitz 1872: 397, 1891a: 567; Sharp & Fowler 1893: 34; Verdcourt 1952: 80; Welch, R. C. 1970: 140; Winter, T. G. 1983: 10. (tx) Balachowsky 1949a: 181; Bechstein 1818: 75, 216; Bechstein et al. 1805: 102; Bedel 1888b: 400, 416; Bertolini 1872; Brancsik 1871; Bright 1963: 111; Chapuis & Candeze 1853; Chorbadzhevo 1924d; Dejean 1821, 1825; Eggers 1908a: 122, 1911a: 123, 1912b: 117, 1912f: 29, 1921: 40–41, 1923a: 162, 1928d, 1929e: 43, 1933f: 8; Eichhoff 1864: 38, 1878b: 165, 1883a: 115, 140; Fabricius 1792: 367; Grune 1979: 90–91; Hansen, V. 1964: 460; Hopkins 1915b: 49; Iablokoff-Khnzorian 1961: 85; Letzner 1891: 377; Lucht 1987: 277; Negru 1966b: 402; Perris 1877a: 413, 415; Pfeffer 1955a: 171; Portevin 1935: 327; Postner 1974: 424; Reitter 1913a: 77; Sahlberg 1836: 149; Schedl 1952f: 87, 1980a: 18, 1981b: 71; Schedl, Lindberg, & Lindberg 1959: 24; Schimitschek 1937: 53, 1955c: 84; Seidlitz 1872: 397, 1891a: 567; Sokanovskii 1930: 801–802; Spessivtsev 1913a: 93, 1922a: 474, 491, 1925a: 175, 1931: 52; Stresemann et al. 1986: 352; Strohmeyer 1912b: 57.

villosus starhoni Reitter 1913a: 77. Syntypes, sex?; Mahrisch-Osttau; NHMB, Budapest. Synonymy: Balachowsky 1949a: 181.

References: (ds) Reitter 1916: 292. (tx) Balachowsky 1949a: 181; Reitter 1913a: 77, 1916: 292; Schedl 1934f: 1643, 1979c: 219.

villosus minor Eggers 1908a: 122. Syntypes, sex?; Sicily: Ragusa; Ragusa Collection.

Notes: (1) Balachowsky 1949a: 182, Pfeffer 1955: 171 (treated as a subspecies).

References: (cn) Schimitschek 1944: 175, 1952c: 58. (cc) Novak, P. 1952: 416; Schimit-

schek 1941a: 316. (**hb**) Geisthardt 1939: 243–246; Schimitschek 1939c: 271–274, 1944: 175. (**ds**) Horion 1951; Kleine 1913b: 136, 1934a: 155; Novak, P. 1952: 416; Pfeffer 1989a: 58; Ragusa 1934a: 155; Sainte-Claire & Mequignon 1938: 447; Roubal 1941: 268; Schaufuss 1915: 1236. (**tx**) Balachowsky 1949a: 182; Eggers 1908a: 122, 1908e, 1911a, 1921: 40–41; Reitter 1913a: 77; Schedl 1934f: 1642; Sokanovskii 1960: 675, 1961: 483–485.

sardus Strohmeier 1912b: 57. Syntypes, sex?; Sardinien (Sorgono); Strohmeier.

Notes: (1) Balachowsky 1949a: 182, Pfeffer 1955: 171 (treated as a subspecies).

References: (**ds**) Csiki 1914; Holdhaus 1923: 115; Kleine 1913a: 307, 1913b: 136; Langhoffer 1915c: 158; Pfeffer 1935: 158, 1947d: 127; Sainte-Claire 1914: 474; Schaufuss 1915: 1236. (**tx**) Balachowsky 1949a: 132; Eggers 1912b: 117, 1914: 40, 1921: 40–41; Pfeffer 1932b: 20; Portevin 1935: 327; Reitter 1913a: 77; Schedl 1934f: 1642, 1979c: 219; Sokanovskii 1960: 675; Strohmeier 1912b: 57.

Genus *Chiloxylon* Schedl

CHILOXYLON SCHEDL 1959m: 550. Type-species: *Chiloxylon rufulus* Schedl, monobasic.

References: (**hb**) Wood, S. L. 1986a: 75. (**ds**) Wood, S. L. 1986a: 75. (**tx**) Schedl 1959m: 550; Wood, S. L. 1986a: 73, 75.

rufulus Schedl 1959m: 550. Holotype ♀; Matto Grosso: Rio Caraguata; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (**tx**) Schedl 1959m: 550, 1979c: 215; Wood, S. L. 1986a: 75.

Genus *Dryocoetiops* Schedl

DRYOCOETIOPS SCHEDL 1957d: 13. Type-species: *Ozopemon laevis* Strohmeier, original designation.

References: (**hb**) Wood, S. L. 1986a: 75. (**ds**) Schedl 1966b: 33; Wood, S. L. 1986a: 75. (**tx**) Schedl 1957d: 13; Wood, S. L. 1986a: 73, 75.

australis (Schedl) 1942c: 181 (*Dryocoetes*). Holotype, sex?; Queensland, Australien; Schedl Collection in NHMW, Wien.

Distribution: Australia (Queensland).

Notes: (1) Schedl 1964m: 308 (to *Dryocoetiops*).

References: (**ds**) Murayama 1957c: 608. (**tx**) Murayama 1957c: 608; Schedl 1942a: 179, 1942c: 181, 1964m: 308, 1979c: 31.

bicolor Schedl 1970b: 360. Holotype ♀; Malaya, Malacca to Nagoya (Japan), imported; PPST, Tokyo.

Distribution: Asia (Malaya).

Hosts: Mersawa.

References: (**tx**) Schedl 1970b: 360, 1979c: 38.

coffaeae (Eggers) 1923: 161 (*Dryocoetes*). Holotype ♀; Java; Hamburg Museum, lost.

Figures: Nobuchi 1966c: pl. 2, 1967: pl. 1.

Distribution: Asia ("China"/ Assam, Bengal in India/ Japan/ Malaya/ Sri Lanka/ Taiwan), Indonesia (Borneo, Java), New Guinea, Philippine Islands. Hosts: *Balanocarpus heimii*, *Coffea arabica*, *C. canephora*, *C. hybrid*, *Dryobalanops oblongifolia*, *Intsia palembanica*, *Kaena laurina*, *Machilus thunbergii*, *Palaquium gutta*, *Quercus* spp., *Shorea sumatrana*, *Swietenia macrophylla*.

Notes: (1) Schedl 1964k: 308 (to *Dryocoetiops*).

References: (**ay**) Gardner 1934b: 1–17. (**cn**) Low 1975; Mathur & Singh 1960a: 13, 1961a: 79. (**hb**) Browne 1961c: 83–84; Kalshoven 1955b: 174. (**ds**) Browne 1961c: 83, 1972a: 19; Kleine 1934a: 155; LePelley 1968: 146; Low 1975; Mathur & Singh 1960a, 1961a; Murayama 1957c: 607; Nobuchi 1966e: 52–54, 1967: 20; Schedl 1936d: 1, 1959a: 491, 1968e: 262; Thomas, R. T. S. 1960a, 1960b. (**tx**) Eggers 1923: 161; Gardner 1934b; Murayama 1957c: 607; Nobuchi 1966c: pl. 2, 1967: pl. 1; Schedl 1936d: 1, 1939c: 348, 1942d: 4, 1943b: 41, 1959a: 491, 1961f: 88, 1962n: 697, 1964k: 308, 1979c: 59.

javanus Eggers 1936e: 87 (*Dryocoetes*). Holotype ♀; Java (Tjibodas, 1400 m); RNH, Leiden. Synonymy: Schedl 1962n: 697.

References: (**ds**) Murayama 1957c: 607; Nunberg 1961b: 609. (**tx**) Eggers 1936e: 57–58; Murayama 1957c: 607; Nunberg 1961b: 609; Schedl 1962n: 697.

eugeniae (Schedl) 1942a: 180 (*Dryocoetes*). Holotype, sex?; Malaya, Segamat; BMNH, London.

Distribution: Asia (Malaya/ Singapore).

Hosts: *Eugenia aequa*.

Notes: (1) Schedl 1964k: 308 (to *Dryocoetiops*).

References: (**ds**) Browne 1961c: 85; Murayama 1957c: 607. (**tx**) Murayama 1957c: 607; Schedl 1942a: 180, 1964k: 308, 1979c: 92.

flavicornis (Blandford) 1895a: 320 (*Dryocoetes*). Holotype ♀; Ceylon, Bogavantalawa; BMNH, London.

Distribution: Asia (Sri Lanka).

References: (**ds**) Kleine 1913b: 136, 1914b: 273; Murayama 1957c: 607; Schedl 1959a: 491. (**tx**) Blandford 1895a: 320; Hagedorn 1910a: 96; Murayama 1957c: 607; Schedl 1959a: 491.

hirsutus (Schedl) 1939e: 348 (*Dryocoetes*). Syntypes 3 ♀; Malaya, Selangor; Kauching For. Res.; BMNH, London.

Distribution: Asia (Malaya), Indonesia (Borneo).

Hosts: *Dryobalanops aromatica*.

References: (**ds**) Browne 1961c: 84; Murayama 1957c: 607. (**tx**) Murayama 1957c: 607; Schedl 1939e: 348, 1954c: 154, 1964m: 308, 1979c: 117.

inopinatus (Schedl) 1955b: 294 (*Dryocoetes*). Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (**ds**) Murayama 1957c: 608. (**tx**)

- Murayama 1957c: 608; Schedl 1955b: 280, 294, 1964m: 308, 1979c: 124.
- kepongi (Schedl)** 1953c: 296 (*Dryocoetes*). Syntypes 2 ♀; Malaya, Selangor, Kepong; BMNH, London and Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya).
Hosts: *Artocarpus lanceifolius*, *A. rigidus*, *A. scortechini*, *Campnosperma auriculata*, *Dryobalanops oblongifolia*, *Gomphia serrata*.
Notes: (1) Schedl 1964m: 308 (to *Dryocoetiops*), 1979c: 132 (citation of holotype invalid).
References: (**cc**) Beaver 1979b: 298. (**hb**) Beaver 1979b: 298; Beaver & Browne 1978: 587. (**ds**) Beaver & Browne 1978: 587; Browne 1961c: 84, 1986c: 661; Murayama 1957c: 608. (**tx**) Murayama 1957c: 608; Schedl 1953c: 296, 1964m: 308, 1979c: 132.
- laevis (Strohmeyer)** 1911b: 22 (*Ozopemon*). Holotype ♀; Mindoro, Calapan, Philippine Islands; Philippine Bureau of Science Collection, Manila. Distribution: Asia (Malaya/ Sri Lanka), Indonesia (Borneo, Java, Sinabang, Sumatra), Philippine Islands (Luzon/ Mindoro).
Hosts: *Dipterocarpus grandiflorus*, *Hopea odorata*.
Notes: (1) Schedl 1957d: 13 (to *Dryocoetiops*).
References: (**cn**) Mathur & Singh 1960b: 57; Schultze 1923: 401. (**ds**) Kleine 1914b: 290; Mathur & Singh 1960b: 57; Ohno, Yoneyama, & Nakazawa 1982b: 8; Ohno et al. 1987: 87; Schedl 1966b: 32; Schultze 1923: 401. (**tx**) Eggers 1927b: 391; Nobuchi 1983: 301; Schedl 1951i: 50, 1957d: 13, 1964m: 307, 1970i: 224, 1971f: 155; Strohmeyer 1911b: 22–23.
- diptercarpi** Hopkins 1915b: 49 (*Ozopemon*). Holotype ♀; Pagbilao, Philippine Islands; USNM, Washington. Synonymy: Schedl 1964m: 307.
References: (**ds**) Kleine 1934a: 157; Schedl 1966b: 40. (**tx**) Hopkins 1915b: 49; Nobuchi 1983: 301; Schedl 1964m: 307.
- diversicolor** Eggers 1923: 160 (*Ozopemon*). Syntypes 2, sex?; Sinabang auf Insel Simalur, sudlich von Sumatra; RNH, Leiden, and Eggers Collection, presumably in USNM, Washington. Synonymy: Eggers 1927b: 391.
References: (**ds**) Schedl 1938g: 426. (**tx**) Eggers 1923: 160, 1927b: 391; Schedl 1957d: 13.
- loebli** Schedl 1972j: 227 (*Pocillips*). Holotype, sex?; Ceylon, Central: Hatton, 1400 m, Montagne boisee a l'est de la ville; MHNC, Geneve. Synonymy: Wood examined NHMW, Wien, paratypes to establish synonymy (Wood 1983 notes).
References: (**tx**) Schedl 1972j: 227, 1979c: 140.
- orbis** Browne 1966: 249 (*Xyleborus*). Holotype ♀; Philippines: Tawi Tawi, Taravakan; UZMC, Copenhagen. Synonymy: Schedl 1970i: 224.
References: (**tx**) Browne 1966: 249; Nobuchi 1983: 303; Schedl 1970i: 224.
- malaccensis (Schedl)** 1942a: 180 (*Dryocoetes*). Holotype ♀; Singapur; Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya).
References: (**ds**) Browne 1961c: 85; Murayama 1957c: 608. (**tx**) Murayama 1957c: 608; Schedl 1942a: 180, 1964m: 308, 1979c: 146.
- nitidus (Schedl)** 1942a: 179 (*Dryocoetes*). Syntypes, sex?; Java, Anim Sand; Kalshoven Collection and Schedl Collection in NHMW, Wien.
Distribution: Asia (Malaya), Indonesia (Java, Sumatra), New Guinea.
Hosts: *Coffea* sp., *Shorea acuminata*.
Notes: (1) Schedl 1964m: 308 (to *Dryocoetiops*), 1979: 170 (citation of holotype invalid).
References: (**ds**) Browne 1961c: 85; Murayama 1957c: 607; Schedl 1961c: 70. (**tx**) Murayama 1957c: 607; Schedl 1942a: 179, 1955b: 294, 1961c: 70, 1964m: 308, 1979c: 169.
- petioli** Beaver 1990a: 281. Holotype ♀; Doi Sutep, Chiang Mai, Thailand, 1300 m; BMNH, London. Figures: Beaver 1990a: 282 (adult outline).
Distribution: Asia (Thailand).
Hosts: *Manglietia garelli* leafstalks.
References: (**tx**) Beaver 1990a: 281.
- schultzei (Schedl)** 1961f: 88 (*Dryocoetes*). Holotype ♀; Luzon, Isabela, San Mariano; Eggers Collection, in NHMW, Wien.
Distribution: Philippine Islands (Luzon).
Notes: (1) Schedl 1964m: 308 (to *Dryocoetiops*).
References: (**ds**) Schedl 1966b: 41. (**tx**) Nobuchi 1983: 301; Schedl 1961f: 88, 1964m: 308, 1979c: 222.
- semigranulatus (Schedl)** 1936d: 10 (*Dryocoetes*). Syntypes, sex?; Java: West Preanger; Kalshoven Collection and Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java).
References: (**ds**) Murayama 1957c: 608. (**tx**) Murayama 1957c: 608; Schedl 1931c: 340, 1936d: 10, 1953c: 296, 1964m: 308, 1979c: 224.
- tonkinensis (Schedl)** 1942a: 179 (*Dryocoetes*). Holotype, sex?; Tonkin, Montes Mason, 2000 bis 3000 fms; Schedl Collection in NHMW, Wien.
Distribution: Asia (Tonkin Island in Vietnam).
Notes: (1) Schedl 1964m: 308 (to *Dryocoetiops*).
References: (**ds**) Murayama 1957c: 608. (**tx**) Murayama 1957c: 608; Schedl 1942a: 179, 1954c: 154, 1964m: 308, 1979c: 254.

Genus *Ozopemon* Hagedorn

- OZOPEMON HAGEDORN** 1908: 382. Type-species: *Ozopemon regius* Hagedorn, monobasic.
References: (**ay**) Nobuchi 1969a: 60. (**hb**) Wood, S. L. 1986a: 75. (**ds**) Schedl 1966b: 40; Wood, S. L. 1986a: 75. (**tx**) Browne 1961: 87; Hagedorn 1908: 382, 1910b: 1; Hopkins 1915b: 9, 48; Wood, S. L. 1986a: 75.

- aplanatus* Schedl** 1942a: 177. Lectotype ♀; Malaya, Selangor, Bukit-Kutu; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 23. Distribution: Asia (Malaya). References: (ds) Browne 1961c: 89; Schedl 1966b: 301. (tx) Nobuchi 1983: 301; Schedl 1942a: 177, 1979c: 23.
- ater* Eggers** 1933a: 101. Holotype ♀; China: Szechuan, Mukue, Tatsienlu; USNM, Washington. Distribution: Asia (Sichuan in China). References: (tx) Anderson, W. H. & Anderson 1971: 5; Eggers 1933a: 101; Michalski 1969b: 570; Schedl 1979c: 29–30.
- augustae* Eggers** 1923a: 159. Syntypes ♀; Deutsch Neu Guinea, Kaiserin Augusteflussgebiet; MNB, Berlin and Eggers Collection, 1 Eggers syntype in NHMW, Wien. Distribution: Indonesia (Borneo, Java), Bismarck Islands, Fiji, New Britain, New Guinea. References: (ds) Browne 1966: 246, 1980a: 371, 1983a: 555, 1989a: 2; Ohno, Yoshioka, et al. 1988a: 92, 1989: 371; Schedl 1962i: 72, 1964c: 305, 1965g: 23, 1969e: 156. (tx) Eggers 1923: 159; Schedl 1940b: 434, 1942d: 4, 1955b: 280, 1979c: 31.
- borneensis* Eggers** 1923a: 154. Syntypes ♀; Sarawak (Borneo) and Siantar (Ostkuste Sumatra); MCG, Genova, and Eggers Collection, in NHMW, Wien. Distribution: Indonesia (Borneo, Sumatra). References: (tx) Eggers 1923a: 154; Schedl 1979c: 44.
- brevis* Eggers** 1923a: 155. Lectotype ♀; Sipora auf der Insel Mentawai; USNM, Washington, designated by Anderson & Anderson 1971: 8. Distribution: Indonesia (Mentawai). References: (hb) Kalshoven 1958b: 175. (tx) Anderson, W. H., & Anderson 1971: 8; Eggers 1923a: 155; Schedl 1979c: 47.
- brownei* Schedl** 1953c: 297. Lectotype ♀; Malaya, Selangor, Pahang, the Gap, 2800 ft; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 48. Distribution: Asia (Malaya), Indonesia (Borneo). Hosts: *Artocarpus elasticus*, *Camposperma* sp., *Parartocarpus* sp. References: (hb) Browne 1959b: 295, 1961c: 87–88; Hamilton 1979: 191. (ds) Browne 1961c: 87, 1980c: 483, 1985a: 190; Ohno et al. 1987: 483; Schedl 1969a: 204. (tx) Browne 1959b: 295; Nobuchi 1983: 301; Schedl 1953c: 297, 1979c: 48.
- fuscicollis* Hagedorn** 1910b: 3. Syntypes 2 ♀; Java; Hamburg Museum, lost. Distribution: Indonesia (Java, Mentawai, Sumatra). Notes: (3) Eggers 1923a: 160 (redescribed). References: (ds) Browne 1980c: 483; Hagedorn 1910d: 67; Kleine 1913b: 138, 1914b: 286, 288. (tx) Eggers 1923a: 160, 1927c: 87, 1939b: 8; Hagedorn 1910a: 98, 1910b: 3; Strohmer 1911b: 24.
- giganteus* Schedl** 1934c: 38. Holotype ♀; Deutsch-Guinea; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: (tx) Schedl 1934c: 38, 1955b: 280, 1979c: 104.
- granulatus* Schedl** 1936g: 526. Lectotype ♀; New Guinea: Finsch Haven; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 110. Distribution: New Guinea. References: (ds) Schedl 1936g: 526. (tx) Schedl 1936g: 526, 1942a: 177, 1979c: 110.
- gravidus* (Blandford)** 1896b: 206 (*Dryocoetes*). Syntypes 2 ♀; Borneo, Sarawak; BMNH, London. Distribution: Indonesia (Sarawak in Borneo). Notes: (1) Hagedorn 1910d: 69 (to *Ozopemon*). References: (ds) Hagedorn 1910d: 69; Kleine 1913b: 138, 1914b: 289. (tx) Blandford 1896b: 206; Hagedorn 1910a: 98, 1910b; Lucas 1920: 472; Strohmer 1911b: 24. (ms) Lucas 1920: 472.
- grossepunctatus* Eggers** 1923a: 155. Holotype ♀; Kina Bali, Borneo; USNM, Washington. Distribution: Asia (Malaya), Indonesia (Borneo), New Guinea. References: (ds) Browne 1961c: 89. (tx) Anderson, W. H. & Anderson 1971: 14; Browne 1961: 89; Eggers 1923a: 155; Schedl 1939c: 329, 1940b: 435.
- latus* Eggers** 1923a: 156. Syntypes ♀; Suban Ajam und Afr. Njuruk Dempu (Sumatra), Solok, Java; 1 in RNH, Leiden, 1 in SMTD, Dresden, 2 in Eggers Collection, 1 of these Eggers syntypes in NHMW, Wien. Distribution: Indonesia (Borneo, Celebes, Java, Sumatra). References: (ds) Browne 1965a: 188; Schedl 1961c: 69, 1966b: 40, 1971f: 147. (tx) Eggers 1923a: 153, 156, 1927b: 390; Nobuchi 1983: 301; Schedl 1979c: 137.
- major* Strohmer** 1911b: 23. Holotype ♀; Luzon, Bataan, Limay; Philippine Islands; Philippine Bureau of Science Collection, Manila. Distribution: Philippine Islands (Luzon). References: (ds) Kleine 1913b: 138, 1914b: 290; Schedl 1966b: 40. (tx) Nobuchi 1983: 301; Strohmer 1911b: 23–24.
- obanus* Hagedorn** 1910b: 3. Syntypes (?) ♀; Mentawai, Si-Oban; Comliura specimina in MNB, Berlin. Distribution: Asia (Assam, Nicobar Islands in India/ Malaya), Indonesia (Batoe Island, Borneo, Java, Mentawai, Sumatra), New Guinea, Philippine Islands. Hosts: *Artocarpus elasticus*, *A. lakocha*, *Vatica* sp. Notes: (3) Eggers 1923a: 153 (redescribed). References: (hb) Kalshoven 1958b: 175. (ds) Beaver & Browne 1978: 591; Browne 1961c: 89, 1966: 246, 1980c: 483, 1984b: 287; Hagedorn 1910d: 67; Kleine 1913b: 138, 1914b: 286; Ohno et al. 1988a: 92, 1989: 60; Schedl 1961c: 70, 1964g:

- 241, 1965g: 23, 1971c: 368, 1971f: 147. (**tx**) Eggers 1923a: 153–154; Hagedorn 1910a: 98, 1910b: 3; Nobuchi 1983: 301; Schedl 1958b: 100, 1958k: 154, 1979c: 174; Strohmeyer 1911b: 24.
- cylindricus** Eggers 1923a: 156. Lectotype ♀; Sumatra; USNM, Washington, designated by Anderson & Anderson 1971: 11. Synonymy: Schedl 1958k: 154.
References: (**ds**) Beeson 1961: 290; Kleine 1934a: 157; Schedl 1961c: 70, 1971f: 147. (**tx**) Anderson, W. H. & Anderson 1971: 11; Eggers 1923: 156; Schedl 1937c: 543, 1940b: 435, 1942d: 4, 1951i: 41, 1958k: 154, 1961c: 70.
- papuanus** Eggers 1923a: 157. Lectotype ♀; Paumotufluss in Sudost-New Guinea; USNM, Washington, designated by Anderson & Anderson 1971: 23.
Distribution: New Guinea.
References: (**ds**) Eggers 1926a; Schedl 1936g: 526. (**tx**) Anderson, W. H. & Anderson 1971: 23; Eggers 1923a: 157, 1926a: 300, 1927b: 390; Schedl 1936g: 526, 1940b: 435, 1955b: 280, 1979c: 184.
- parinari** Hopkins 1915b: 48. Holotype ♀; Calapan, Philippine Islands; USNM, Washington.
Distribution: Philippine Islands.
Hosts: *Parinari* sp.
References: (**ds**) Kleine 1934a: 157; Schedl 1966b: 41. (**tx**) Hopkins 1915b: 48; Nobuchi 1983: 301.
- perfacilis** Eggers 1939b: 8. Holotype ♀; Tenasserim (Malvedaung, 30 km sudlich Ye); NHR, Stockholm.
Distribution: Asia (Burma).
References: (**tx**) Eggers 1939b: 8.
- regius** Hagedorn 1908: 382. Syntypes 2 ♀; Sumatra; Hamburg Museum, lost.
Distribution: Asia (Malaya/ Thailand), Indonesia (Batoe, Borneo, Celebes, Mentawai, Sumatra).
Hosts: *Artocarpus elastica*, *Palaquium gutta*.
References: (**ds**) Beaver & Browne 1975: 292; Browne 1961c: 88–89, 1980d: 491; Hagedorn 1910d: 67; Kleine 1913b: 138, 1914b: 286; Schedl 1961c: 69, 1965g: 23. (**tx**) Eggers 1923a: 152–153, 1927b: 390; Hagedorn 1908: 382, 1910a: 98, 1910b; Hopkins 1914: 126; Schedl 1961c: 69, 1965g: 23; Strohmeyer 1911b: 24.
- rugatus** (Blandford) 1896b: 204 (*Dryocoetes*). Holotype ♀; Borneo, Sarawak; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Koompassia malaccensis*.
Notes: (1) Hagedorn 1910a: 69 (to *Ozopemon*).
References: (**cn**) Mathur & Singh 1960b: 84. (**hb**) Browne 1938a. (**ds**) Beeson 1961: 290; Browne 1938a; Hagedorn 1910d: 69; Kleine 1913b: 138, 1914b: 289; Mathur & Singh 1960b: 84. (**tx**) Blandford 1896b: 204; Hagedorn 1910a: 98, 1910b; Strohmeyer 1911b: 24.
- similis** Eggers 1927c: 87. Lectotype ♀; Borneo, Sandakan; USNM, Washington, designated by Anderson & Anderson 1971: 30.
Distribution: Indonesia (Borneo, Mentawai, Sabah).
Hosts: *Shorea* sp.
Notes: (1) Schedl 1979c: 229 (Designated an invalid lectotype).
References: (**ds**) Browne 1984b: 287; Ohno, Yoneyama, & Narazawa 1987: 93; Schedl 1961c: 70, 1964c: 304, 1964g: 241, 1969a: 206, 1971f: 147. (**tx**) Anderson, W. H. & Anderson 1971: 30; Eggers 1927c: 87; Schedl 1939c: 329, 1954c: 154, 1958h: 498, 1961c: 70, 1964g: 241, 1979c: 229.
- sumatranus** (Blandford) 1896b: 205 (*Dryocoetes*). Holotype ♀; Sumatra, Singalang Mts.; BMNH, London.
Distribution: Indonesia (Sumatra).
Notes: (1) Hagedorn 1910d: 69 (to *Ozopemon*).
References: (**ds**) Hagedorn 1910d: 69; Kleine 1913b: 138, 1914b: 286; Schedl 1961c: 70. (**tx**) Blandford 1896b: 205; Eggers 1923a: 153; Hagedorn 1910a: 98, 1910b; Schedl 1942d: 4, 1961c: 70; Strohmeyer 1911b: 24.
- theklae** Hagedorn 1910b: 2. Syntypes ♀; Sumatra, Mount Singalang; MNB, Berlin, 1 in Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Sumatra).
Notes: (1) Schedl 1979c: 252 (citation of holotype invalid). (3) Eggers 1923a: 158 (redescribed the species and named an aberration as a var. of *sirambeanus*, no status).
References: (**ds**) Hagedorn 1910d: 67; Kleine 1913b: 138, 1914b: 286; Schedl 1971f: 147. (**tx**) Eggers 1923a: 158–160; Hagedorn 1910a: 98, 1910b: 2; Schedl 1979c: 252; Strohmeyer 1911b: 24.
- singalangicus** Eggers 1923a: 153. Syntypes ♀; Sumatra, Mounts Singalang; MNB, Berlin, 1 in Schedl Collection in NHMW, Wien. Synonymy: Schedl 1979c: 252.
Notes: (3) Eggers 1923a: 153 (possible var. of *sumatranus*).
References: (**ds**) Kleine 1914b: 286. (**tx**) Eggers 1923a: 153; Schedl 1971f: 147, 1979c: 252.
- tuberculatus** Strohmeyer 1912d: 38. Syntypes 2 ♀; Formosa; Strohmeyer Collection.
Distribution: Asia (Malaya/ Taiwan).
References: (**ds**) Kleine 1913b: 138, 1914b: 281; Miwa 1931: 269; Nobuchi 1967: 20. (**tx**) Strohmeyer 1912d: 38.
- uniseriatus** Eggers 1923a: 158. Syntypes 3 ♀; Moroka, Sudost-New Guinea; 1 syntype in MCG, Genova, 1 in MNB, Berlin, 1 in Eggers Collection, in NHMW, Wien.
Distribution: New Guinea.
References: (**tx**) Eggers 1923a: 158–159, 1927b: 390; Schedl 1979c: 261.

Genus *Coccotrypes* Eichhoff

COCCOTRYPES EICHHOFF 1878b: 308. Type-species: *Bostrichus dactyliperda* Fabricius, subsequent designation by Hopkins 1914: 118.

Pocilips Schaufuss 1897: 110. Type-species: *Pocilips sanna* Schaufuss, monobasic. Synonymy: Wood 1973c: 171.

References: (hb) Browne 1961: 91–92; Chesquiere 1933a: 26, 1933b: 775; Schedl 1958d: 114, 189. (ds) Blackwelder 1947: 778; Brimblecombe 1953: 23; Hagedorn 1910d: 77; Kalshoven 1960: 176, 1968: 176. (tx) Arnett 1960: 1044, 1968: 1044; Beeson 1938b: 290, 1939: 279–280, 285–300, 302–307, 1941: 364, 369, 389; Browne 1938a: 24, 1959b: 293–294, 1966: 233–257, 1973b: 679–696; Chamberlin 1939: 317–320; Eggers 1923: 129, 1927a: 185, 1927b: 390, 1940b: 99–108; Hagedorn 1908: 375, 1909: 744, 1910a: 110–112; Hopkins 1914: 135, 1915c: 226; Lepesme 1947: 643; Murayama 1954: 200, 1957: 589–592; Roepke 1919: 23–24; Schaufuss 1897: 110; Schedl 1934f: 1634, 1938d: 456, 1938e: 9–10, 1952k: 160, 1957d: 1–162, 1959a: 488, 1960b: 163, 1960f: 12, 24, 1961j: 349, 1961k: 715, 1962m: 63, 1962n: 697–699, 1962p: 205, 1968e: 261–270, 1977b: 95; Wood, S. L. 1960a: 14, 47, 1961a: 46, 1973c: 171.

Cryphaloides Formanek 1908: 91. Type-species: *Cryphaloides donisthorpei* Formanek = *Bostrichus carpophagus* Hornung, monobasic. Synonymy: Schedl 1962r: 95.

References: (tx) Balachowsky 1949a: 200; Formanek 1908: 91; Hopkins 1915b: 8; Nunberg 1956: 141; Reitter 1913a: 65; Schedl 1962r: 95.

Thamurgides Hopkins 1915b: 45. Type-species: *Thamurgides persicae* Hopkins = *Coccotrypes advena* Blandford, original designation. Synonymy: Schedl 1938e: 9.

References: (ay) Nobuchi 1969a: 62. (ds) Schedl 1966b: 33. (tx) Beeson 1938b: 290, 1939: 279–308; Eggers 1923a: 129–220, 1927b: 390; Hopkins 1915b: 45; Kalshoven 1935: 146–154; Schedl 1938e: 10, 1961k: 715; Wood, S. L. 1960a: 47.

Spermatoplex Hopkins 1915b: 48. Type-species: *Spermatoplex rhizophorae* Hopkins, original designation. Synonymy: Schedl 1952k: 160.

References: (tx) Barber 1919: 53–60; Hopkins 1915b: 9, 48; Schedl 1952k: 160, 1961k: 715.

Dendurgus Eggers 1923a: 144. Type-species: *Dendurgus rhizophorae* Eggers, subsequent designation by Wood 1982b: 731. Synonymy: Eggers 1927b: 390.

References: (tx) Eggers 1923a: 144, 1927b: 390; 1938e: 9; Schedl 1961k: 715; Wood, S. L. 1960a: 47.

Keys: Wood 1982b: 732 for North and Central America.

Notes: (3) Hagedorn 1913: 254 (*Hyphaene guineensis*, nomen nudum, no status, synonymy). Schedl 1953c: 290, Browne 1961c: 93 (*Pocilips granulicauda* Schedl, nomen nudum, from Malaya, Human in China, no status).

References: (cn) Green 1916: 608–636; Lever 1943: 14–18; Light 1928: 25–34; Swaine 1908: 82, 90. (hb) Browne 1938a: 24, 1961c: 89–91; Chesquiere 1933a: 29, 1933b: 775, 778; Schedl 1958d: 184; Wood, S. L. 1986a: 75. (ds) Brimblecombe 1953: 14; Hagedorn 1910d: 68; Lepesme 1947: 633–642; Reitter 1906: 713; Schedl 1934f: 1643; Scheerpeltz & Winkler 1930: 257; Schilsky 1888: 122; Seidlitz 1891a: 567, 1891b: 631; Westhoff 1881: 240; Wichmann 1954: 515; Wood, S. L. 1986a: 75. (tx) Arnett 1960: 1044, 1968: 1044; Balachowsky 1949a: 177; Beeson 1938b: 287, 1939: 279–285, 301–302, 1941: 363–364, 371, 894–895, 924; Blandford 1894b: 261, 1894d: 98, 1898b: 189, 192; Bright 1972: 66; Chamberlin 1939: 317–319, 1958: 12; Eggers 1927e: 40–41, 1940a: 123–141, 1940b: 99–108; Eichhoff 1878b: 36, 57–58, 308, 1881a: 52, 74, 267, 1883: 108, 115; Enderlein 1929: 147; Fonseca 1930: 87; Gardner 1934: 4, 14; Hagedorn 1910a: 88, 93–94, 1913a: 3, 1913b: 253; Hopkins 1914: 118, 133, 1915b: 9, 45–46, 1915c: 195, 226; LeConte & Horn 1883: 518; Lengerken 1939: 64; Lovendal 1889: 25–26, 72; Murayama 1957: 589–590, 609–614; Nusslin 1911: 111, 145; Pfeffer 1989a: 58; Reitter 1894: 68, 89, 1913a: 75, 78–79; Sampson 1914: 389; Schedl 1938e: 1, 9–10, 1943d: 68, 1948i: 113–120, 1959a: 469–534, 1960f: 10–12, 1961k: 681, 1962k: 595–1352, 1962p: 205, 1962r: 95, 1977b: 80; Stebbing 1914: 545; Strohmeyer 1911: 21; Wood, S. L. 1961a: 46, 1973c: 171, 1986a: 75; Yin, Huang, & Li 1984: 151.

abruptulus (Schedl) 1975i: 347 (*Pocilips*). Holotype ♀; New Guinea, N.E., Kiunga; NHMB, Budapest.

Distribution: New Guinea.

References: (tx) Schedl 1975i: 347.

abruptus (Schedl) 1979g: 99 (*Pocilips*). Holotype ♀; Papua New Guinea: S. E., Kiunga; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1979g: 99.

aciculatus Schedl 1952d: 360. Holotype ♀; Hamburgfarm on Rio Reventazon, Limon, Costa Rica; Schedl Collection in NHMW, Wien.

Distribution: New Guinea, North America (Costa Rica/ Panama), South America (Brazil).

References: (ds) Murayama 1957c: 611; Nunberg 1972b: 190; Schedl 1960a: 76; Wood, S. L. 1977a: 69, 1982b: 736. (tx) Murayama 1957c: 611; Schedl 1950i: 148, 1952d: 360, 1955b: 280, 1960a: 76, 1979c: 10; Wood, S. L. 1982b: 736.

advena Blandford 1894d: 100. Holotype ♀; Nagasaki, Japan; BMNH, London.

Figures: Browne 1973b: 690.

Distribution: Antilles Islands (Cuba), Asia (Assam, Bengal, Karnataka, Uttar Pradesh in India/ Japan/ Malaya/ Sri Lanka/ Vietnam), Australia (Queensland), Fiji, Indonesia (Borneo, Java, Sumatra), Hawaii, Micronesia, New Guinea, Niue Island, North America (S Florida in USA), Philippine Islands, Samoan Islands, South America (Suriname). Hosts: *Albizzia* sp., *Artocarpus lanceifolius*, *A. rigidus*, *A. scortechini*, *Campnosperma auriculata*, *Dillenia retusa*, *Diospyros* sp., *Eugenia formosana*, *E. similis* seeds, *Ficus bracteata*, *F. xylophylla*, *Macaranga gigantea*, *Nephelium lichi*, *Pterocarpus indicus*, *Theobroma cacao*, *Vateria indica*.

Notes: (1) Schedl 1979c: 125 (*Pocillips nigricollis* Eggers, nomen nudum, *P. pernitidus* Eggers, nomen nudum, no status, synonymy).

References: (cn) Souphieff & Scherbinovskaja 1937: 88. (cc) Beaver 1979b: 298. (hb) Beaver 1979b: 298; Beaver & Browne 1978: 593; Wood, S. L. 1982b: 733. (ds) Beaver 1976b: 537; Beaver & Browne 1978: 593; Blandford 1894c; Bright 1985c: 172; Browne 1973b: 689, 1974a: 64, 1980a: 372, 1980c: 485, 1980d: 492; Hagedorn 1910d: 68; Kleine 1913b: 137, 1914b: 258; Murayama 1954b: 202, 1957c: 588, 626; Nonveiller 1984: 41; Ohno, Yoneyama, & Nakazawa 1987: 93; Schedl 1959a: 490, 1971a: 276, 1972b: 266, 1972e: 281, 1973c: 377, 1975e: 447, 1975h: 352, 1975i: 346, 1975j: 293, 1978c: 293, 1979b: 415, 1979f: 103; Souphieff & Scherbinovskaja 1937: 88; Wood, S. L. 1977a: 69, 1982b: 733. (tx) Blandford 1894d: 100; Bright 1985c: 172; Browne 1970: 566, 1973b: 684, 690; Eggers 1929b: 112; Hagedorn 1910a: 94; Murayama 1954b: 202, 1957c: 588, 626; Nobuchi 1983: 301; Schedl 1934f: 1643, 1938e: 10, 1942d: 3, 1948i: 113, 1955b: 292, 1959a: 490, 1963h: 267; Wood, S. L. 1973c: 174, 1982b: 733.

persicolae Hopkins 1915b: 45 (*Thamnurgides*). Holotype ♀; Honolulu, Hawaii; USNM, Washington. Synonymy: Wood 1973c: 174.

References: (cn) Mumford 1961: 31. (hb) Kalshoven 1963; Roepke 1919b: 23. (ds) Beeson 1938b: 290; Kalshoven 1963; Kleine 1934a: 164; Mumford 1961: 31; Murayama 1957c: 630–631; Nobuchi & Ono 1973: 181; Swezey 1941: 120, 1954: 162. (tx) Beeson 1929: 228, 1938b: 290; Hopkins 1915b: 45; Murayama 1957c: 630–631; Roepke 1919b: 23; Schedl 1936g: 526, 1938e: 10, 1941f: 112, 1954a: 147, 1961k: 729, 1964m: 217; Wood, S. L. 1960a: 47, 49, 1973c: 174.

philippinensis Eggers 1923a: 145 (*Dendurgus*). Lectotype ♀; Mt. Makiling, Insel Luzon, Philippinen; USNM, Washington, designated by Anderson & Anderson 1971: 24. Synonymy: Wood 1989: 170.

References: (cn) Souphieff & Scherbinov-

skaya 1937: 89; Wylie & Shanahan 1975. (hb) Wylie & Shanahan 1975. (ds) Brimblecombe 1953: 26; Murayama 1957c: 630; Nunberg 1964a: 235; Schedl 1936g: 526, 1966b: 37; Souphieff & Scherbinovskaya 1937: 89. (tx) Anderson, W. H. & Anderson 1971: 24; Beeson 1929: 229; Eggers 1923a: 145, 148, 1927b: 390, 397–398, 1934a: 79; Murayama 1957c: 630; Nobuchi 1983: 301; Schedl 1933e: 104, 1938e: 10, 1940b: 434, 1962n: 698, 1979c: 192; Wood, S. L. 1966b: 28, 1989: 170.

ternatensis Eggers 1923a: 146 (*Dendurgus*). Syn-types ♀; Insel Ternate; MCG, Genova, and in Eggers Collection, in NHMW, Wien. Synonymy: Wood 1989: 170.

Notes: (1) Schedl 1979c: 252 (citation of holotype invalid).

References: (cc) Beaver 1979b: 298. (hb) Beaver 1979b: 298. (ds) Beaver & Browne 1978: 598; Murayama 1957c: 630–631. (tx) Beeson 1929: 230, 1939: 237; Eggers 1923a: 145–146, 1927b: 406, 1927c: 80; Murayama 1957c: 630–631; Schedl 1979c: 252; Wood, S. L. 1989: 170.

minor Eggers 1923a: 150 (*Dendurgus*). Lectotype ♀; Buitenzorg auf Java, Botanischer Garten; USNM, Washington, designated by Anderson & Anderson 1971: 21. Synonymy: Wood 1989: 170.

References: (ds) Murayama 1957c: 630; Schedl 1967c: 73. (tx) Anderson, W. H. & Anderson 1971: 20; Beeson 1939: 228; Eggers 1923a: 150; Murayama 1957c: 630; Schedl 1938e: 10, 1955b: 292, 1979c: 154; Wood, S. L. 1989: 170.

setosus Beeson 1929: 228 (*Thamnurgides*). Holotype ♀; Samoa: Tutuila, Fagasa; BMNH, London. Synonymy: Schedl 1961k: 728.

References: (ds) Beeson 1938b: 291; Murayama 1957c: 630. (tx) Beeson 1929: 228, 1938b: 291, 1939: 285, 298; Murayama 1957c: 630; Schedl 1951k: 135, 1961k: 728, 1963h: 267.

tutuilensis Beeson 1929: 229 (*Thamnurgides*). Holotype ♀; Samoa: Tutuila, Fagasa; BMNH, London. Synonymy: Wood 1989: 170.

Notes:

References: (ds) Beaver 1987b: 9; Beaver & Maddison 1990: 371; Beeson 1938b: 291; Browne 1973: 684; Murayama 1957c: 631. (tx) Beeson 1929: 229–230, 1938b: 291; Murayama 1957c: 631; Schedl 1951k: 135; Wood, S. L. 1989: 170.

philippinensis Schedl 1933e: 104. Holotype ♀; Mount Maquilang, Laguna, Luzon; not given. Synonymy: Schedl 1966c: 37.

References: (tx) Nunberg 1964: 235; Schedl 1933e: 104–105, 1966c: 37.

cubanus Eggers 1934a: 79 (*Thamnurgides*). Holotype ♀; Cuyajahas, Sierra Rosario, Cuba; USNM, Washington. Synonymy: Wood 1960a: 48.

References: (ds) Blackwelder 1947: 778. (tx)

- Anderson, W. H. & Anderson 1971: 10; Eggers 1934a: 79; Schedl 1961k: 728, 1963f: 55, 1979c: 71; Wood, S. L. 1960a: 49.
- miciferus* Schedl 1938e: 10 (*Pocilips*). Lectotype ♀; Paramaribo, Surinam; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 172. Synonymy: Schedl 1961k: 738.
References: (cn) Dinther 1961. (ds) Blackwelder 1947: 778; Diakonoff 1938: 12–14. (tx) Schedl 1938e: 10–12, 1961k: 728, 1979c: 172.
- vicarius* Beeson 1939: 285 (*Thammurgides*). Holotype ♀; Samsing, Kalimpong, Bengal, India; FRI, Dehra Dun. Synonymy: Schedl 1961k: 728. References: (cn) Mathur, Singh, & Lal 1958: 45; Mathur et al. 1958: 104. (ds) Beeson 1961: 301; Mathur, Singh, & Lal 1958: 45; Mathur et al. 1958: 104; Murayama 1957c: 630. (tx) Beeson 1939: 285, 307; Murayama 1957c: 630; Schedl 1961k: 728, 1963l: 267.
- niger* Schedl 1939e: 345 (*Pocilips*). Syntypes ♀; Malaya, Selangor: Kuala Lumpur, Kepong, Sungei Buloh For. Res., Perak: Trolak For. Res.; BMNH, London and Schedl Collection in NHMW, Wien, preoccupied by Eggers 1927. Synonymy: Wood 1960a: 48.
References: (cn) Yunus & Hua 1980: 229. (ds) Yunus & Hua 1980: 229. (tx) Browne 1949b: 897, 1970: 566; Schedl 1939e: 345–346, 1942a: 170, 1953c: 289; Wood, S. L. 1960a: 48.
- subnitidus* Schedl 1954a: 147 (*Pocilips*). Holotype ♀; Java, Buitenzorg, 250 m; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1961k: 728.
References: (tx) Schedl 1954a: 139, 147, 1961k: 730, 1963h: 267, 1979c: 243.
- alternatus* (Eggers) 1927b: 398 (*Thammurgides*). Holotype ♀; Sumatra; USNM, Washington.
Distribution: Indonesia (Sumatra).
References: (tx) Anderson, W. H. & Anderson 1971: 3; Eggers 1927b: 398.
- asper* (Schedl) 1961j: 351 (*Pocilips*). Holotype ♀; Ghana, nr. Kumasi, Bobiri Forest Reserve; BMNH, London.
Distribution: Africa (Sao Thome Island/ Ghana).
References: (ds) Browne 1970: 541, 1973b: 690. (tx) Browne 1973b: 690; Schedl 1961j: 351, 1961k: 717, 1979c: 28.
- aspericollis* (Beeson) 1939: 295 (*Thammurgides*). Holotype ♀; Assam: Naga Hills, 3000 feet; FRI, Dehra Dun.
Distribution: Asia (Tonkin Island in Vietnam/ Assam in India).
References: (tx) Beeson 1939: 295.
- babai* (Murayama) 1961: 29 (*Thammurgus*). Holotype ♀; Mt. Kinpoku, Sado Isl., Japan; USNM, Washington.
Distribution: Asia (Japan).
References: (tx) Murayama 1961: 29; Schedl 1963j: 480.
- barbatus* (Schedl) 1934d: 90 (*Thammurgides*). Lectotype ♀; Java, Mount Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 34.
Distribution: Asia (Burma/ Assam in India/ Malaya). Indonesia (Java, Sumatra).
Hosts: *Bambusa tulda*, *Carapa obovata*, *Dipterocarpus pilosus*, *Livistona cochinchinensis*, *Mitrostemon* sp., *Myristica* sp.
References: (cn) Box 1953a. (hb) Kalshoven 1958b: 175. (ds) Kalshoven 1935a: 14. (tx) Schedl 1934d: 90, 1938e: 10, 1979c: 34.
- ater* Eggers 1936e: 84 (*Thammurgides*). Holotype ♀; Sumatra (Brastagi); Strohmeier Collection, Eberswalde. Synonymy: Wood 1989: 170.
References: (cn) Mathur, Singh, & Lal 1958: 21; Yunus & Hua 1980: 229. (hb) Browne 1938a. (ds) Beaver & Browne 1978: 593; Beeson 1961: 299; Browne 1938a; Mathur, Singh, & Lal 1958: 21; Schedl 1936d: 2, 1936j: 19, 1975j: 293; Yunus & Hua 1980: 229. (tx) Beeson 1939: 289; Browne 1970: 568; Eggers 1936e: 84, 1939d: 224; Schedl 1934d: 90–91, 1936d: 1, 1936j: 19, 1938e: 10, 1942d: 4, 1953c: 298, 1953e: 26, 1979c: 30.
- dipteroearpi* Beeson 1939: 288 (*Thammurgides*). Syntypes ♀; Assam: Lakhimpur division, Dihing reserve; FRI, Dehra Dun. Synonymy: Wood 1989: 170.
References: (cn) Mathur, Singh, & Lal 1958: 40; Mathur et al. 1958: 104. (ds) Beeson 1961: 300; Kleine 1934a: 157; Mathur, Singh, & Lal 1958: 40; Mathur et al. 1958: 104. (tx) Beeson 1939: 288; Eggers 1936e: 86–87; Wood, S. L. 1989: 170.
- bambusae* Beeson 1939: 289 (*Thammurgides*). Syntypes ♀; Burma: Pynmana division, Yanaungmyin reserve; FRI, Dehra Dun. Synonymy: Wood 1989: 170.
References: (ds) Beeson 1939: 289, 1961: 299; Bhasin, Roonwal, & Singh 1958. (tx) Beeson 1939: 289; Wood, S. L. 1989: 170.
- bicolor* Sampson 1914: 390. Syntypes 2 ♀; Seychelles Isl., Mahe: slopes of Morne Seychellois, 1500–2000 ft.; BMNH, London.
Distribution: Africa (Seychelles Islands).
References: (ds) Beaver 1987a: 13; Sampson 1914: 389; Schedl 1969d: 11. (tx) Beaver 1987a: 13; Browne 1970: 567; Sampson 1914: 389–390.
- birmanus* Eggers 1939b: 8. Holotype ♀; Birma (Washaung, 20 km ostlich Myitkyina); NHR, Stockholm.
Distribution: Asia (Burma).
References: (tx) Eggers 1939b: 8–9.
- borneensis* (Eggers) 1923a: 146 (*Dendrugus*). Holotype ♀; Sarawak (Borneo); MCG, Genova.
Distribution: Indonesia (Sarawak in Borneo).
References: (tx) Eggers 1923a: 146.

brunneus (Nunberg) 1961b: 616 (*Poecilips*). Holotype ♀; Malay Peninsula, Kelantan Ulu Lebiri; BMNH, London.

Figures: Nunberg 1961b: 628.

Distribution: Asia (Malaya).

Hosts: *Balanocarpus heimii*.

References: (tx) Nunberg 1961b: 616, 628, 1973: 23; Schedl 1962n: 698.

brunnipes Wood 1989: 178. Holotype ♀; Congo Belge: P.N.A., Mont Hoyo, grotte Yolohafiri, 1030 m; MRCB, Tervuren, automatic.

Distribution: Africa (Zaire).

References: (tx) Wood, S. L. 1989: 178.

brunneus Nunberg 1973: 23. Holotype ♀; Congo Belge: P.N.A., Mont Hoyo, grotte Yolohafiri, 1030 m; MRCB, Tervuren, preoccupied by Nunberg 1961.

References: (tx) Nunberg 1973: 23; Wood, S. L. 1989: 178.

campnospermae (Browne) in Beaver & Browne 1978: 593 (*Poecilips*). Holotype ♀; Malaysia: Penang, Muka Head; BMNH, London.

Figures: Beaver & Browne 1978: 576.

Distribution: Asia (Malaya).

Hosts: *Campnosperma auriculata*.

References: (ec) Beaver 1979b: 298. (hb) Beaver 1979b: 298. (tx) Beaver & Browne 1978: 576, 593; Browne 1979: 593.

cardamomi Schaufuss 1905: 1. Holotype ♀; Ceylon (de Warendorf); Hamburg Museum, lost.

Distribution: Asia (Burma/ "China"/ Karnataka, Kerala in India/ Japan/ Malaya/ Nepal/ Sri Lanka/ Taiwan/ Vietnam), Indonesia (Borneo, Sumatra).

Hosts: *Canarium strichum*, *Cullenia excelsa*, *Elaeocarpus tuberculatus*, *Ellettaria cardamomum*, *E. major*, *Hardwickia pinnata*, *Pteridium aquilinum*, *Vateria indica*.

References: (ay) Gray, B. 1972b; Herfs 1949. (cn) Herfs 1949; Kleine 1932a: 302; Mathur & Singh 1960a: 39, 1960b: 36; Mathur, Singh, & Lal 1958: 20; Mathur et al. 1958: 104; Nobuchi 1981a; Souphieff & Scherbinovskaja 1937: 88. (hb) Beaver 1987a: 13; Gray, B. 1972b; Herfs 1949; Kleine 1932a: 302. (ds) Beaver 1987a: 13; Beaver & Browne 1978: 594; Beeson 1939: 291, 302, 1961: 299; Blasius, Roonwal, & Singh 1958; Browne 1961c: 92, 1983b: 76; Hagedorn 1910d: 68; Kalshoven 1935a: 14; Kleine 1913b: 137, 1914b: 273, 1932a: 302, 1934a: 156; Mathur & Singh 1960a: 39, 1960b: 36; Mathur, Singh, & Lal 1958: 20; Mathur et al. 1958: 104; Schedl 1959a: 485, 1960e: 171, 1972j: 233, 1973b: 210, 1973c: 377; Souphieff & Scherbinovskaja 1937: 88. (tx) Beeson 1939: 291, 302; Eggers 1923a: 146, 1927b: 406, 1936d: 626; Gray, B. 1972b; Hagedorn 1910a: 94, 1910e, 1913a: 46; Lepesme 1944: 238; Schaufuss 1905: 1; Schedl 1959a: 485, 488.

carinensis (Eggers) 1923a: 147 (*Dendrugus*). Holotype ♀; Carin Cheba (900–1100 m); MCG, Genova.

Distribution: Asia (Burma?).

References: (tx) Eggers 1923a: 147–148, 1925: 153.

carpophagus (Hornung) 1842: 116 (*Bostrichus*). Syntypes ♀; Ostindien in Furchten von Betelnüssen; MNB, Berlin.

Distribution: Africa (Angola/ Azores Islands/ Cameroon/ Canary Islands/ Chad/ Ethiopia/ Guinea/ Ivory Coast/ Liberia/ Nigeria/ Sengal/ Seychelles Islands/ Sierra Leone/ South Africa/ Sudan/ Tanzania/ Uganda/ Zaire), Antilles Islands (Bermuda/ Cuba/ Grenada/ Guadeloupe/ Jamaica/ Monserrat/ Puerto Rico/ Santo Domingo/ Trinidad/ Virgin Islands), Asia (Burma/ Cambodia/ Bengal, Karnataka, Nicobar Islands, Tamil Nadu, Uttar Pradesh in India/ Japan/ Korea/ Sri Lanka/ Taiwan/ Thailand/ Vietnam), Australia (Queensland), Europe (England/ France), Hawaii, Indonesia (Borneo, Java, Sumatra), Madagascar, Micronesia (Guam), North America (El Salvador/ Guatemala/ Honduras/ Veracruz in Mexico/ District of Columbia, Florida, New Jersey in USA/ Philippine Islands, Reunion Island, Samoa, South America (Brazil/ Cayenne/ Colombia/ Guyana/ Peru/ Suriname). Commonly intercepted in seeds and nuts in temperate countries where it cannot breed.

Hosts: *Anona squamosa*, *Archantophoenix alexandrae*, *Areca catechu*, *Borassus flabellifer*, *Cassia grandis*, *Chamaedorea elegans*, *Chrysallocarpus* sp., *Coccothrinix argentea*, *Diospyros* spp., *Elaeis guineensis*, *Erythrina cyjiestagalli*, *Eugenia cumini*, *Euterpe globosa*, *Hyphaena guineensis*, *Livingstonia* spp., *Manikara kauki*, *Neowashingtonia robusta*, *Phoenix dactylifera*, *Polyalthia simiarum*, *Prichardia thurstoni*, *Rollinia octopetala*, *Sabal mauritiaeformis*, *S. palmetto*, *Shorea robusta*, *Theobroma cacao*, *Thrinax argentea*, *Washingtonia filifera*.

Notes: (3) Schedl 1960b: 163 (*sublongus* Eggers, nomen nudum, synonymy), 1961: 684, 686 (*subseriatus* Eggers, nomen nudum, *brevis* Eggers, nomen nudum, no status, synonyms).

References: (bv) Perfecto 1988; Schedl 1960f: 12. (cn) Anonymous 1966s; Daniel & Kumar 1978; Esser 1966: 4; Mathur & Singh 1960b: 59; Mathur, Singh, & Lal 1958: 10; Mathur et al. 1958: 95; Mumford 1962: 21; Perfecto 1988; Souphieff & Scherbinovskaja 1937: 88. (ec) Janzen 1972. (hb) Beaver 1987a: 13; Beaver & Browne 1978: 583, 1975: 287; Beeson 1922: 494; Browne 1961c: 89–90; Ghesquiere 1933a: 27, 1933b: 776; Kalshoven 1958b: 179, 1963; Oommen & Nair 1969: 314–315; Peck, Kukalova-Peck, & Borden 1989; Wood, S. L. 1982b: 738. (ds) Alluaud 1900: 438–442; Anonymous 1966s; Atkinson & Equilua 1985b:

- 236; Beaver 1976b: 537, 1987a: 13; Beaver & Browne 1975: 287, 1978: 583; Beeson 1938: 287, 1941: 371, 1961: 286; Bhasin, Roonwal, & Singh 1958: 34; Blackwelder 1947: 778; Blatchley & Leng 1916: 608–609; Borges & Serrano 1989; Bright 1985c: 172, 1987a: 3; Brimblecombe 1953: 14; Browne 1961c: 89; Chamberlin 1939: 317–318; Chilson 1958: 335; Choo 1983: 84; Choo & Woo 1985: 165; Choo, Woo & Park 1983: 174; Costa Lima 1925: 159, 1936: 358, 1956: 290; Dinther 1960: 111; Ferreira 1965: 1116; Fonseca 1930: 87; Gemminger & Harold 1872: 2687; Golding 1947: 79; Hagedorn 1910d: 68; Hargreaves 1937: 509, 520; Hilburn & Gorden 1959: 689; Israelson 1984; Kalshoven 1958: 178, 1963: 234; Kleine 1928: 302, 1934a: 156–157; Lepesme et al. 1948: 635; Luigiioni 1929: 998; Mathew 1987: 188; Mathur & Singh 1960b: 59; Mathur, Singh, & Lal 1958: 10; Mathur et al. 1958: 95; Matthew 1982; Mumford 1962: 21; Nieuwenhuijzen 1953: 346–347; Nonveiller 1984: 40; Nunberg 1972b: 190; Schedl 1959a: 485, 1959p: 17, 1960f: 12, 1961c: 71, 1961k: 655, 1962b: 186, 1964e: 68, 1965a: 339, 1966b: 33, 1966f: 78, 1969d: 7, 1970e: 82, 1972j: 224, 1973c: 378, 1973d: 154, 1975e: 447, 1975h: 350, 1975i: 346, 1975j: 294, 1976a: 51, 1977a: 80, 1977d: 278, 1977e: 42, 1978c: 294, 1982: 287; Souphieff & Scherbinovskaja 1937: 88; Sturm 1843: 230; Swezey 1928: 186–187, 1941: 120–121, 1954: 502, 516; Tucker 1952: 347; Van Zwaluwenburg 1956: 9; Wichmann, Heinrich E. 1927: 80; Wichmann, H. E. 1927b: 379, 1954: 502, 516, 1955a: 98; Wood, S. L. 1960a: 46, 1977a: 69, 1982b: 738; Zacher 1927: 162. **(tx)** Beeson 1939: 282; Blandford 1894d: 99, 1898a: 424, 1898b: 193; Bright 1985c: 172; Browne 1972b: 21; Choo 1983: 84; Eggers 1912b: 117, 1920: 33, 1922a: 87, 1924: 104, 1925: 159, 1927a: 180, 1927b: 399, 1929b: 112, 1929e: 52, 1933b: 2, 8, 1940b: 103; Eichhoff 1878b: 58, 310–311; Emden 1924: 187; Ferrari 1867a: 32; Hagedorn 1904g: 546, 1910a: 94, 1910e: 3, 1913a: 4, 26–27, 1913b: 254; Hopkins 1915b: 45–47; Hornung 1842: 116–117; Murayama 1957c: 611–613; Nobuchi 1967: 13, 20, 1983: 301; Nunberg 1958a: 480; Reitter 1913a: 79; Sampson 1914: 389, 1921: 28; Schaufuss 1905: 8; Schedl 1938e: 10, 1939e: 329, 1941d: 350, 1942b: 147–148, 1942c: 163, 1942d: 3, 1948i: 114, 1950i: 145–146, 1951b: 376, 1951k: 144, 1954a: 139, 1957c: 325, 1959a: 485–486, 1959p: 17, 1960b: 163, 1960f: 12, 22, 51, 1960h: 105–106, 1961c: 71, 1961k: 685–690, 1962b: 194, 1962h: 58, 1962r: 95, 1964e: 68, 1964k: 216, 1965a: 339, 1966f: 78, 84, 1967a: 124, 1969d: 5, 1970e: 81–82, 1977b: 79–80; Schmidt 1939: 84; Stebbing 1914: 543; Strohmeier 1911: 17; Wolcott 1948: 384; Wood, S. L. 1960a: 46–47, 1975b: 392, 1982b: 738.
- pygmaeus* Eichhoff 1878b: 310. Syntypes ♀; Madagascar; Schedl Collection (Schedl 1961: 686) in NHMW, Wien. Synonymy: Schedl 1959a: 486.
- References: **(ay)** Herfs 1949: 27. **(cn)** Costa Lima 1956; Ghesquiere 1933a; Grandi 1951; Gregory 1954; Hagedorn 1904g, 1913a; Hargreaves 1922: 64; Herfs 1949: 27, 1958: 421; Souphieff & Scherbinovskaja 1937: 89; Wichmann 1927b: 379. **(cc)** Rossem 1979; Wichmann, H. E. 1955a: 98. **(hb)** Chamberlin 1939: 318; Costa Lima 1956; Grandi 1951; Hagedorn 1913a; Herfs 1949: 27; Kalshoven 1958b: 179; Wichmann, H. E. 1927b: 379. **(ds)** Allnand 1900: 441; Beeson 1938b: 287; Blackwelder 1947: 778; Blatchley & Leng 1916: 609; Chamberlin 1939: 318; Costa Lima 1956; Fairmaire 1892b; Ghesquiere 1933a; Hagedorn 1903b: 546, 1910d: 68, 1913a; Hargreaves 1921: 57–64, 1927: 113–128, 1937: 509, 520; Horion 1951; Kalshoven 1958: 179; Kleine 1913b: 138, 1914b: 288, 290, 307, 310, 326, 338, 379, 1932: 28, 1934a: 157; Light 1928: 25–34; Mumford 1961: 19; Murayama 1957c: 611; Nobuchi 1967: 20; Nunberg 1958a: 480, 1960b: 161, 1965b: 17; Sampson 1914: 389, 1921: 28; Schedl 1962b: 184, 1980a: 19; Swezey 1928: 186, 1929: 271–273, 1936: 202, 1941: 120, 1951: 210, 1954: 173; Wichmann, Heinrich E. 1927: 80; Wichmann, H. E. 1955a: 98. **(tx)** Blatchley & Leng 1916: 609; Chamberlin 1939: 318; Costa Lima 1956; Eggers 1912b: 117, 1920, 1924: 104–105, 1927a: 180–181, 1927b, 1933b: 2, 8, 1940b: 103; Eichhoff 1878a: 391, 1878b: 310; Fairmaire 1892b; Hagedorn 1903b: 546, 1910a: 94, 1910e, 1913b: 254; Hopkins 1915b: 45; Murayama 1957c: 611; Nunberg 1958a: 480, 1960b: 161; Reitter 1913a: 79; Sampson 1914: 389, 1921: 28; Schaufuss 1905: 1; Schedl 1940b: 435, 1948i: 114, 1950i: 144–145, 1959a: 456, 1961k: 686, 1980a: 19; Strohmeier 1911b: 17.
- integer* Eichhoff 1878b: 331. Syntypes ♀; Siam; 1 in USNM, Washington, others lost with Hamburg Museum. Synonymy: Eggers 1929e: 52.
- References: **(ay)** Herfs 1949: 36. **(cn)** Herfs 1949: 36; Kleine 1932a: 302; Mathur & Singh 1961a: 45; Mathur, Singh, & Lal 1958: 39; Mathur et al. 1958: 95; Stebbing 1914: 543. **(cc)** Beeson 1922c: 494; Stebbing 1914: 543. **(hb)** Beeson 1922c: 494; Herfs 1949: 36; Kleine 1932a: 302; Stebbing 1914: 543. **(ds)** Beeson 1922c: 494; Blandford 1898a; Hagedorn 1910d: 68; Kalshoven 1958: 178; Kleine 1913b: 137, 1914b: 273, 280, 1932a: 302; Mathur & Singh 1961a: 45; Mathur, Singh, & Lal 1958: 39; Mathur et al. 1958: 95. **(tx)** Eggers 1929a: 87, 1925: 159, 1929b: 112, 1929e: 52; Eichhoff 1878a: 391, 1878b: 311; Hagedorn 1910a, 1910e, 1913a: 46; Hopkins 1915b: 46; Schedl 1938e: 10, 1948i: 114, 1961k: 686; Stebbing 1914: 543; Wood, S. L. 1960a: 46.
- donisthorpei* Formanek 1908: 91 (*Cryphaloides*).

- Syntypes ♀; Kew Gardens, London, England; BMNH, London. Synonymy: Schedl 1962r: 95.
References: **(ds)** Hagedorn 1910d: 42. **(tx)** Formanek 1908: 91; Hagedorn 1910a: 86; Hopkins 1914: 118; Reitter 1913a: 65–70; Schedl 1962r: 95.
- bakeri* Hopkins 1915b: 46. Holotype ♀; Havana, Cuba; USNM, Washington. Synonymy: Schedl 1964g: 216.
References: **(ds)** Blackwelder 1947: 778; Fonseca 1930: 87; Leng & Mutchler 1917: 220; Murayama 1957c: 611; Schedl 1961k: 684, 1962h: 58, 1962k: 1077, 1969d: 5; Wichmann 1954: 515. **(tx)** Hopkins 1915b: 45–46; Murayama 1957c: 611; Schedl 1950i: 145–146, 1957c: 325, 1961k: 684, 1962k: 1077, 1964g: 216.
- anonae* Hopkins 1915b: 46. Holotype ♀; Cuba; USNM, Washington. Synonymy: Schedl 1950i: 145.
References: **(cn)** Souphieff & Scherbinovskaja 1937: 88. **(ds)** Blackwelder 1947: 778; Kleine 1934a: 156; Leng & Mutchler 1917: 220; Souphieff & Scherbinovskaja 1937: 88. **(tx)** Hopkins 1915b: 45–46; Schedl 1948i: 113, 1950i: 145, 1957c: 325, 1959a: 486, 1961k: 686.
- hubbardi* Hopkins 1915b: 46. Holotype ♀; Monserrat, West Indies; USNM, Washington. Synonymy: Schedl 1950i: 146.
References: **(ds)** Blackwelder 1947: 778; Leng & Mutchler 1917: 220. **(tx)** Hopkins 1915b: 45–46; Schedl 1950i: 145–146, 1961k: 684.
- thuracis* Hopkins 1915b: 46. Holotype ♀; Isle of Pines, Cuba; USNM, Washington. Synonymy: Schedl 1964k: 216.
References: **(cn)** Souphieff & Scherbinovskaja 1937: 89. **(ds)** Blackwelder 1947: 778; Kleine 1934a: 157; Leng & Mutchler 1917: 220; Lepesme et al. 1948: 638; Murayama 1957c: 611; Souphieff & Scherbinovskaja 1937: 89; Tucker 1952: 347. **(tx)** Hopkins 1915b: 45–46; Murayama 1957c: 611; Schedl 1938e: 10, 1948i: 114, 1960b: 163, 1964k: 216.
- liberensis* Hopkins 1915b: 47. Holotype ♀; Mount Coffee, Liberia; USNM, Washington. Synonymy: Wood 1975b: 392.
References: **(ds)** Murayama 1957: 613; Schedl 1961k: 710, 1971g: 190. **(tx)** Hopkins 1915b: 46–47; Schedl 1953g: 241–242, 1961k: 710; Wood, S. L. 1975b: 392.
- rollinae* Hopkins 1915b: 47. Holotype ♀; Para, Brazil; USNM, Washington. Synonymy: Schedl 1950i: 145.
References: **(cn)** Costa Lima 1956; Souphieff & Scherbinovskaja 1937: 89. **(hb)** Costa Lima 1956. **(ds)** Blackwelder 1947: 778; Costa Lima 1936, 1956; Kleine 1934a: 157; Souphieff & Scherbinovskaja 1937: 89. **(tx)** Costa Lima 1956; Hopkins 1915b: 46–47; Schedl 1950i: 145, 1959a: 486, 1961k: 686.
- nanus* Eggers 1920: 33. Lectotype ♀; Kamerun; USNM, Washington, designated by Anderson & Anderson 1971: 21. Synonymy: Schedl 1948i: 114.
References: **(tx)** Anderson, W. H. & Anderson 1971: 21; Eggers 1920: 33, 1940b: 103; Schedl 1938e: 10, 1941d: 380, 1948i: 114, 1959a: 486, 1961k: 686, 1979c: 163; Wood, S. L. 1960a: 46.
- canariensis* Eggers 1928a: 117. Lectotype ♀; Gran Canaria (Las Palmas) im Park Santa Catalina; USNM, Washington, designated by Anderson & Anderson 1971: 8. Synonymy: Bright 1987a: 5.
References: **(cn)** Herfs 1950: 5; Souphieff & Souphieff & Scherbinovskaja 1937: 45. **(ds)** Kleine 1934a: 156; Schedl, Lindberg, & Lindberg 1959: 23; Souphieff & Scherbinovskaja 1937: 45; Uyttenboogaart 1937: 117, 1947: 10. **(tx)** Anderson, W. H. & Anderson 1971: 8; Bright 1987a: 5; Eggers 1928a: 117–118; Schedl 1934f: 1643, 1938: 10, 1960b: 162, 1979c: 51; Schedl, Lindberg, & Lindberg 1959: 23.
- phoenicola* Beeson 1939: 281. Holotype ♀; India: United Provinces, Dehra Dun; FRI, Dehra Dun. Synonymy: Wood 1989: 170.
References: **(cn)** Mathur, Singh, & Lal 1958: 66; Mathur et al. 1958: 95. **(ds)** Beeson 1961: 286; Mathur, Singh, & Lal 1958: 66; Mathur et al. 1958: 95. **(tx)** Beeson 1939: 281; Schedl 1979c: 193.
- trevori* Beeson 1939: 282. Holotype ♀; Nicobars: Kondul; FRI, Dehra Dun. Synonymy: Wood 1989: 170.
References: **(cn)** Mathur, Singh, & Lal 1958: 10; Mathur et al. 1958: 95; Roonwal 1954: 82. **(ds)** Beeson 1961: 286; Mathur, Singh, & Lal 1958: 10; Mathur et al. 1958: 95; Roonwal 1954: 82. **(tx)** Beeson 1939: 282, 302; Schedl 1979c: 255; Wood, S. L. 1989: 170.
- pilosulus* Schedl 1948i: 118. Holotype ♀; Kurando, Q [Queensland?]; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 170.
Notes: (1) The holotype consists of the head and prothorax of a *carpophagus* obviously glued to a *dactyliperda* body (Wood 1983 notes, p. 16).
References: **(tx)** Schedl 1948i: 118, 1979c: 194; Wood, S. L. 1989: 170.
- ceylonicus* Schedl 1948i: 119. Lectotype ♀; Ceylon; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 55. Synonymy: Wood 1989: 170.
References: **(ds)** Schedl 1959a: 485, 1972j: 224. **(tx)** Browne 1970: 565; Schedl 1948i: 118–119, 1959a: 485–487, 1979c: 55; Wood, S. L. 1989: 170.
- punctulatus* Eggers 1951: 151. Holotype ♀; Insel St. Thomas, Virgin Islands; Eggers Collection, in NHMW, Wien. Synonymy: Wood 1975b: 392.

- References: **(ds)** Murayama 1957c: 611. **(tx)** Eggers 1951: 151; Murayama 1957c: 611; Schedl 1948i: 117, 1979c: 205; Wood, S. L. 1975b: 392. *grisscopuberulus* Schedl 1972g: 59. Holotype ♀; Pariquera, State of Sao Paulo; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 170.
References: **(tx)** Schedl 1972g: 59, 1979c: 112; Wood, S. L. 1989: 170.
- exasperatus* Schedl 1975d: 455. Holotype ♀; Madras: Anaimalai Hills, au dessus d'Aliyar Dam; MHNC, Geneve. Synonymy: Wood 1989: 170.
References: **(tx)** Schedl 1975d: 455, 1979c: 93; Wood, S. L. 1989: 170.
- chimbui** (Schedl) 1975f: 354 (*Pocilips*). Holotype ♀; New Guinea, Sattelberg, Huon Golf, Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: **(tx)** Schedl 1975f: 354, 1979c: 56.
- cinnamomi** (Eggers) 1936d: 630 (*Thammurgides*). Holotype ♀; Ceylon (Peradeniya); BMNH, London.
Distribution: Asia (Karnataka, Maharashtra in India/ Malaya/ Sri Lanka/ Thailand), Indonesia (Java).
Hosts: *Artocarpus elasticus*, *A. lanceifolius*, *A. rigidus*, *A. scortechini*, *Calamus* sp., *Campnosperma auriculata*, *Cinnamomum zeylanicum*, *Dacmonorops* sp., *Elaeocarpus petiolatus*, *Ficus bracteata*, *F. xylophylla*, *Intsia palembanica*, *Macaranga gigantea*, *Machilus macrantha* (leaf-stalks), *Mangifera indica*, *Pinus* sp., *Podocarpus indicus*, *Semecarpus curtisii*, *Shorea leprosula*.
References: **(cn)** Mathur, Singh, & Lal 1958: 26; Mathur et al. 1958: 104. **(ec)** Beaver 1979b: 298. **(hb)** Beaver 1979b: 298, 1987a: 14. **(ds)** Beaver 1987a: 14; Beaver & Browne 1975: 294, 1978: 594; Beeson 1939: 290, 303, 1961: 300; Bhasin, Roonwal, & Singh 1958; Browne 1961c: 92, 1981a: 126, 1986a: 91; Mathur, Singh, & Lal 1958: 26; Mathur et al. 1958: 104; Schedl 1953c: 290, 1959a: 488, 1971a: 281, 1971c: 366. **(tx)** Beeson 1939: 290, 303; Browne 1986a: 91; Eggers 1936d: 630–631, 1959a: 488.
- circumdatus** Fonseca 1930: 88. Holotype ♀; Sao Paulo: Ypiranga; Inst. Biol. [DZSA or MZUSP?], Sao Paulo, no. 476.
Distribution: South America (Brazil).
Hosts: *Cocos australis*.
References: **(cn)** Costa Lima 1956; Souphieff & Scherbinovskaja 1937: 88. **(hb)** Costa Lima 1956. **(ds)** Blackwelder 1947: 778; Costa Lima 1936, 1956; Kleine 1934a: 156; Lepesme et al. 1948: 642; Murayama 1957c: 611; Souphieff & Scherbinovskaja 1937: 88. **(tx)** Costa Lima 1956; Fonseca 1930: 88–91; Murayama 1957c: 611.
- collaris** (Schedl) 1965c: 59 (*Pocilips*). Holotype ♀; Madagascar, Ankofa (Inondation); Maroantsetra, Ambodivoangy; Nosy Be; IRSM, Madagascar.
Distribution: Madagascar.
Notes: (3) DEB note indicates that this holotype is in MNHN, Paris.
References: **(tx)** Schedl 1965c: 59, 1977b: 96, 1979c: 59.
- confertus** (Schedl) 1942d: 24 (*Pocilips*). Lectotype ♀; Java, Gn. Megamendoeng; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 61.
Distribution: Indonesia (Java).
Notes: (3) Schedl 1959r: 42 (treated this species as a synonym of *miseriatus*).
References: **(tx)** Schedl 1942d: 24, 1959r: 42, 1979c: 61.
- confusus** (Eggers) 1940b: 106 (*Pocilips*). Holotype ♀; Congostaat: Likete; MRCB, Tervuren.
Figures: Browne 1973b: 690.
Distribution: Africa (Cameroon/ Congo/ Ivory Coast/ Nigeria/ Sierra Leone/ Zaire), Madagascar.
Hosts: *Chrysophyllum lacourtianum*, *Coffea liberica*, *Iringia grandifolia*, *Japaca guineensis*, *Mammea africana*, *Mangifera indica*, *M. odorata*, *Nephelium leachi*, *Pachylobius deliciosus*, *Poinciana regia*.
References: **(bv)** Schedl 1960f: 24. **(cn)** Gregory 1954. **(ec)** Schedl 1961k: 717. **(hb)** Schedl 1961k: 717, 1977b: 96. **(ds)** Beeson 1941: 379; Bright 1972d: 65, 1985c: 172; Browne 1970: 541, 568, 1986c: 661; Chesquiere 1933a: 33; Hargreaves 1937: 509; Kleine 1934: 164; Murayama 1957c: 631; Nunberg 1969a: 382; Schedl 1960f: 24, 96–99, 1961k: 717, 1966c: 717, 1967c: 213, 1971e: 2, 1977b: 96, 1979b: 415; Wichmann 1954: 517. **(tx)** Bright 1972: 65, 1985c: 172; Browne 1973b: 693; Eggers 1940b: 106; Murayama 1957c: 631; Schedl 1938e: 10, 1942d: 4, 1954d: 870, 1957a: 193, 1961e: 127, 1961k: 717, 1966e: 224, 1977b: 961, 1979c: 62.
- sierraleonensis* Eggers 1932d: 292 (*Pocilips*). Holotype ♀; Sierra Leone (Njala); BMNH, London.
References: **(cn)** Mathur & Singh 1960a: 14; Mathur, Singh, & Lal 1958: 31; Mathur et al. 1958: 101. **(ds)** Beeson 1961: 292; Browne 1973b: 693, 1983b: 77; Hargreaves 1937: 509; Kleine 1934a: 164; Mathur & Singh 1960a: 14; Mathur, Singh, & Lal 1958: 31; Mathur et al. 1958: 101; Murayama 1957c: 631; Roba 1935: 338. **(tx)** Browne 1973b: 690, 693; Eggers 1932d: 292, 1940b: 106; Murayama 1957c: 631; Schedl 1938e: 10, 1954d: 870, 1979c: 228.
- congonus** Eggers 1924: 104. Syntypes ♀; Kasai (Inamu), Congostaat; MRCB, Tervuren, 1 syntype in BMNH, London, Eggers Collection, 2 Eggers syntypes in NHMW, Wien.
Figures: Schedl 1961k: 719.

Distribution: Africa (Angola/ Cameroon/ Congo/ Ethiopia/ French Guinea/ Ghana/ Ivory Coast/ Nigeria/ Sierra Leone/ South Africa/ Zaïre/ Zambia/ Zimbabwe), Madagascar.

Hosts: *Azelia* sp., *Anopyxis calensis*, *Anthonotha macrophylla*, *Archontophoenix cunninghamiana*, *Canarium schweinfurthii*, *Cynometra hancei*, *Elaeis guineensis*, *Erythropheleum guineense*, *Eugenia condensata*, *E. jambolana*, *Gilbertiodendron dewevrei*, *Gossweilerodendron balsamiferum*, *Homalium* sp., *Oxystigma oxyphyllum*, *Pachyclasma tessmannii*, *Peterisia africana*, *Polyalthia suaveolens*, *Sclerosperma mannii*.

References: (cn) Alibert 1946; Ghesquiere 1933a: 33, 35; Mayne & Donis 1951: 331–332; Schouteden 1927: 114–116; Souphieff & Scherbinovskaja 1937: 88. (ec) Mayne & Donis 1951: 331–332. (hb) Alibert 1946; Paulian 1949b: 353, 1951: 27; Schedl 1961k: 719; Wichmann 1954: 517. (ds) Browne 1973b: 687; Cachan 1957: 15; Ghesquiere 1933a: 33–35, 1933b: 776, 783; Kemner 1924: 1–33; Kleine 1934a: 156, 164, 619–628; Lepesme et al. 1948: 636–637; Murayama 1957c: 631; Numberg 1952: 18, 22, 1965b: 18; Paulian 1951: 27, 30; Schedl 1959p: 17, 1962h: 58; Souphieff & Scherbinovskaja 1937: 88; Vanderyst 1923: 614–619, 1924: 149–156; Wichmann 1954: 515; Wood, S. L. 1957e: 1273. (tx) Browne 1973b: 687; Eggers 1924: 104, 1927a: 187, 198, 1932d: 291–293, 1940b: 104, 107; Murayama 1957c: 631; Numberg 1952: 18, 22, 1969a: 382; Powell, W. 1980: 29; Schedl 1938e: 10, 1941d: 380, 1948i: 114, 1950c: 204, 1950d: 7, 1951e: 38, 1951j: 19, 1953g: 242, 1954d: 870, 879, 1955d: 268, 1957c: 325, 1957d: 13, 1959p: 17, 1960f: 54–131, 1961k: 690–691, 719, 1961m: 84, 1962k: 1077, 1965c: 80, 1979e: 62; Wood, S. L. 1957e: 1273.

corpulentus Browne 1970: 565. Holotype ♀; Singapore; BMNH, London.

Distribution: Asia (Singapore), Indonesia (Sarawak in Borneo).

References: (tx) Browne 1970: 565.

crassiventris (Schedl) 1961j: 351 (*Pocilips*). Holotype ♀; Ghana, nr. Kumasi, Bobiri Forest Reserve; BMNH, London.

Figures: Browne 1973b: 690.

Distribution: Africa (Ghana).

References: (ds) Browne 1973b: 687; Schedl 1964j: 41. (tx) Browne 1973b: 687, 690; Schedl 1961j: 351, 1961k: 723, 1979e: 67–68.

creber (Schedl) 1955b: 290 (*Pocilips*). Holotype ♀; New-Guinea, Sattelberg; Schedl Collection in NIMW, Wien.

Distribution: Fiji, New Guinea.

References: (ds) Murayama 1957c: 630; Schedl 1979f: 103. (tx) Murayama 1957c: 630; Schedl 1955b: 280, 290.

cylindricus (Eggers) 1927a: 187 (*Pocilips*). Holotype ♀; Congo Belg.: Sankuru; MRCB, Tervuren.

Distribution: Africa (Angola/ Cameroon/ Fernando Po Island/ Ghana/ Ivory Coast/ Zaïre).

Hosts: *Antranella congolensis*, *Combretodendron macrophyllum*, *Desplatzia dewevrei*, *Trichilia gilgiana*.

References: (bv) Schedl 1960f: 55. (cn) Ghesquiere 1933a: 33–36, 1933b: 783–786. (hb) Schedl 1961k: 723. (ds) Browne 1973b: 692; Ferreira 1965: 1117; Ghesquiere 1933a: 33–36; Kleine 1934a: 164, 619–628; Murayama 1957c: 631; Schedl 1959p: 17, 1960f: 55–111, 1966f: 78, 1967e: 68, 213, 1971g: 191, 1972e: 281, 1977b: 98, 1979b: 415. (tx) Browne 1973b: 692; Eggers 1927a: 187, 1932d: 292; Murayama 1957c: 631; Schedl 1953d: 69, 1961k: 723, 1964e: 68, 1972e: 289, 1977a: 98, 1979c: 74.

cyperi (Beeson) 1929: 230 (*Thamnurgides*). Holotype ♀; Upolu: Apia, Samoan Islands; BMNH, London.

Distribution: Antilles Islands (Guadeloupe/ Jamaica/ Martinique/ Puerto Rico/ Trinidad), Asia (Burma/ Xizang [Tibet] in China/ Assam, Bengal, Karnataka, Kerala, Maharashtra in India/ Malaya/ Sri Lanka/ Vietnam), Australia (Queensland), Cook Island, Fiji, Hawaii, Indonesia (Java), North America (Costa Rica/ Panama/ Florida, Louisiana in USA), Micronesia, Samoan Islands, South America (Brazil/ Suriname), Tahiti, Tongan Islands.

Hosts: *Aesculus punduana*, *Amoora wallichii*, *Artocarpus lakoocha*, *Borassus flabellifer*, *Canarium strictum*, *Carallia lucida*, *Careya arborea*, *Cossia arabica*, *Cynometra hemitobophylla*, *Dipterocarpus trinervis*, *Eleocarpus oblongus*, *Eugenia formosa*, *E. sp.*, *Ficus glomerata*, *Gluta travancoria*, *Macademia indica*, *Macaranga denticulata*, *Mammea americana*, *Mangifera indica*, *Orbignya oleifera*, *Persca americana*, *Phyltelephas macrocarpa*, *Pronia copaifer*, *Swietenia macrophylla*, *Swintonia floribunda*, *Terminalia myriocarpa*, *Theobroma cacao*, *Vateria indica*, *Xylia dolabriformis*.

References: (cn) Mathur & Singh 1961a: 81, 1961b: 34; Mathur, Singh, & Lal 1958: 45, 104; Roonwal 1954: 40. (ec) Roberts 1976: 385. (hb) Beaver 1987a: 14; Roberts 1976: 385; Wood, S. L. 1982b: 735. (ds) Atkinson & Equihua 1955b: 236; Beaver 1987a: 14; Beaver & Maddison 1990: 1371–1372; Beeson 1938b, 1939, 1961: 300; Bright 1985c: 172; Browne 1974a: 64; Kalshoven 1935a: 14; Kleine 1914b: 104; Mathur & Singh 1961a: 81, 1961b: 34; Mathur, Singh, & Lal 1958: 45, 104; Murayama 1957c: 630; Roberts 1976: 385; Roonwal 1954: 40; Wood, S. L. 1982b: 735. (tx) Beeson 1929: 230–231, 294, 303, 1938: 290, 1939; Bright 1985c: 172; Murayama 1957c: 630; Schedl 1942d: 23, 1951k: 135; Wood, S. L. 1978b: 397, 1982b: 735.

indicus Eggers 1936d: 631 (*Thamnurgides*).

- Holotype ♀; Indien, Mysore State: Sakalasapur; BMNH, London. Synonymy: Wood 1978c: 397. References: **(cn)** Mathur & Singh 1960a: 13, 1960b: 14, 1961a: 79, 1961b: 26; Mathur, Singh, & Lal 1958: 15; Mathur et al. 1958: 104. **(hb)** Kalshoven 1958b: 176. **(ds)** Beeson 1939: 294, 304, 1961: 300; Bhasin, Roonwal, & Singh 1958: 68, 72–73; Browne 1961c: 92–93; LePelley 1968: 146; Mathur & Singh 1960a: 13, 1960b: 14, 1961a: 79, 1961b: 26; Mathur, Singh, & Lal 1958: 15, 104; Murayama 1957: 628; Roonwal 1954: 89; Schedl 1959a: 488, 1969d: 8, 1971a: 276, 1972j: 223, 1975c: 488, 1977a: 98; Wichmann 1954: 516; Wood, S. L. 1977a: 69. **(tx)** Beeson 1939: 294, 304, 1941: 390; Browne 1961c: 92–93; Eggers 1936d: 631; Nobuchi 1959a: 12–13; Schedl 1942d: 4, 1952d: 343, 1953c: 289, 1959a: 488, 1969d: 8, 11, 1972q: 257, 1977a: 98; Wood, S. L. 1973c: 179, 1978b: 397.
- conspiciens* Schedl 1936i: 110 (*Xyleborus*). Holotype ♀; Costa Rica, Hamburgfarm, Reventazon, Ebene Limon (Schedl 1979c: 64); Schedl Collection in NHMW, Wien. Synonymy: Wood 1973c: 179. References: **(ds)** Blackwelder 1947: 779; Murayama 1957c: 631; Schedl 1963f: 55, 1966f: 85, 1970e: 82, 1972g: 43, 1978c: 294. **(tx)** Murayama 1957c: 631; Schedl 1936i: 110, 1948i: 114, 1962m: 64, 1963f: 55, 1979c: 64; Wood, S. L. 1973c: 179.
- subdepressus* Eggers 1940a: 127 (*Dryocoetes*). Holotype ♀; Trois Rivières, Guadeloupe; Eggers Collection, in NHMW, Wien. Synonymy: Wood 1977c: 384. References: **(tx)** Eggers 1940a: 127; Schedl 1938e: 10, 1948i: 115; Wood, S. L. 1977c: 384.
- insularis* Eggers 1940a: 127 (*Dryocoetes*). Syntypes ♀; Guadeloupe and Martinique; MNB, Berlin and 4 cotypes in Eggers Collection, in NHMW, Wien, preoccupied by Eggers 1939. Synonymy: Schedl 1962m: 63. References: **(tx)** Browne 1970: 568; Eggers 1940a: 127; Schedl 1950f: 39, 1952d: 345, 1979c: 125.
- insularis* Eggers 1940a: 129. Lectotype ♀; Trois-Rivières, Guadeloupe; USNM, Washington, designated by Anderson & Anderson 1971: 15, preoccupied by Eggers 1939d: 223. Synonymy: Schedl 1962m: 63. References: **(tx)** Eggers 1940a: 129; Schedl 1948i: 114, 1952d: 347, 1960b: 162, 1962m: 63, 1963f: 55, 1979c: 125; Wood, S. L. 1973c: 179.
- subimpressus* Eggers 1940a: 127 (*Dryocoetes*). Holotype ♀; Trois Rivières, Guadeloupe; Eggers Collection, in NHMW, Wien. Synonymy: Wood 1977c: 384. References: **(ds)** Murayama 1957c: 607. **(tx)** Eggers 1940a: 127; Murayama 1957c: 607;
- Schedl 1958k: 143, 1979c: 242; Wood, S. L. 1977c: 384.
- subaplanatus* Schedl 1942d: 23 (*Pocillips*). Lectotype ♀; Java, O. Preanger, Tjampea; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 240. Synonymy: Wood 1989: 170. References: **(hb)** Kalshoven 1958b: 176. **(tx)** Numberg 1960: 616; Schedl 1942d: 23, 1979c: 240; Wood, S. L. 1989: 170.
- caraibicus* Schedl 1952d: 345 (*Pocillips*). Syn-types ♀; Guadeloupe and Martinique; MNB, Berlin and Eggers Collection in USNM, Washington and/or in NHMW, Wien, automatic. Synonymy: Schedl 1962: 63. References: **(ds)** Murayama 1957c: 627. **(tx)** Murayama 1957c: 627; Schedl 1952d: 345, 1957a: 193, 1962m: 63–64.
- eggersi* Schedl 1952d: 347 (*Pocillips*). Lectotype ♀; Trois-Rivières, Guadeloupe; USNM, Washington, designated by Anderson & Anderson 1971: 15. Synonymy: Schedl 1962m: 63. References: **(cn)** Costa Lima 1956. **(hb)** Costa Lima 1956. **(ds)** Costa Lima 1956. **(tx)** Costa Lima 1956; Lepesme 1944: 238; Schedl 1952d: 347, 1962m: 63–64; Wood, S. L. 1973c: 179.
- pilifrons* Browne 1970: 568 (*Pocillips*). Holotype ♀; India: Nilgiri Hills; BMNH, London. Synonymy: Schedl 1972q: 257. References: **(tx)** Browne 1970: 568–569; Schedl 1972q: 257.
- dactyliperda* (Fabricius) 1801: 387 (*Bostrichus*). Syntypes 2 ♀; date seeds; UZMC, Copenhagen. Figures: Balachowsky 1949a: 183, 186, Bright 1972d: 59, Schedl 1961k: 697, Yin, Huang, & Li 1984: 52. Distribution: Africa (Cameroon/ Canary Islands/ Egypt/ Equatorial Guinea/ Eritrea in Ethiopia/ Kenya/ Madeira Island/ Malawi/ Morocco/ Mozambique/ Senegal/ South Africa/ Sudan/ Tanzania/ Uganda), Antilles Islands (Bahama Islands/ Cuba/ Jamaica/ Puerto Rico), Asia (Arabia/ Bonin Islands/ Burma/ China/ Kamataka, Maharashtra, Uttar Pradesh in India/ Israel/ Japan/ Jordan/ Malaya/ Thailand), Australia (Queensland), Europe (Crete/ France/ Greece/ Italy/ Portugal/ Spain), Hawaii, Madagascar/ New Guinea, New Zealand, North America (Baja California in Mexico/ Panama/ Arizona, California, Florida, Texas in USA), Solomon Islands, South America (Argentina/ Brazil/ Chile/ Colombia/ Ecuador/ Guyana/ Peru/ Uruguay/ Venezuela). Intercepted in tropical seeds throughout the world. Hosts: *Arca catechu*, *Cargotus urenus*, *Chamaedorea* spp., *Chamerops* spp., *Cinnamomum zeylanicum*, *Coccus* spp., *Coccothrinax* sp., *Dictyospermum album*, *Elaeis guineensis*, *Elaeocarpus oblongus*, *Freycinetia arborea*, *Hyphaena* spp., *Hyphorbe* sp., *Livingstonia* spp., *Olea europaea*, *Oreodoxa* spp., *Persea gratissima*,

Phloenix spp., *Phytelephas macrocarpa*, *Pritchardia pacifica*, *Ptychosperma* sp., *Sabal bermudana*, *Seaforthia* sp., *Washingtonia filifera*. See also Schedl 1961k: 698–701 for host list.

Notes: (3) Rey 1892: 30 (named aberration *obscurus*, no status). Schedl 1950i: 145 (*areccae* Eggers, nomen nudum, synonymy).

References: (ay) Bright 1981b; Gardner 1934b; Imhoff 1856: 228; Meisner et al. 1985; Vassilaina-Alexopoulou, Mourikis, & Buchelos 1986. (bv) Schedl 1960f: 52. (cn) Asagbonhi 1988; Anonymous 1939b: 319, 1964h, 1972f; Avidov 1869: 306; Bach 1874; Batra, R. C. 1972: 44; Beitsch 1934: 63–67; Buxton 1920; Campos 1924, 1929: 63–65; Carpenter & Elmer 1978; Decaux 1890b; Fagniez 1946; Fenner et al. 1950: 48; Fröhlich & Rodewald 1969: 202; Garcia-Tejero 1955: 233; Gentry, J. W. 1965: 121; Ghesquiere 1933c; Grandi 1951; Hagedorn 1904g; Hargreaves 1921: 57–64; Herfs 1858: 421–422, 1950: 4–5, 1959; Kalshoven 1932: 248; Kehat, Blumberg, & Greenberg 1976; Kehat et al. 1966: 173; Keifer 1922: 286, 1945: 253; Kleine 1932a: 302; Lever 1943a: 14–18; Linsley 1943: 804–805; Lucas 1846: 100; Martin 1958: 122; Mathur & Singh 1960b: 63; Mathur, Singh, & Lal 1958: 10; Mathur et al. 1958: 95; Morris, H. M. 1937: 21; Rao & Janaki 1953: 805; Roonwal 1954: 82, 1971a; Sanabria 1921: 1–6; Schedl 1960f: 52; Schouteden 1927: 114; Schwartzman & Kurtz 1956: 499–504; Sohi & Bata 1972; Souphieff & Scherbinovskaja 1937: 15; Speyer 1918: 10–13; Squire 1935: 121–124; Stickney et al. 1950: 48; Van der Merwe 1923: 1–4; Wachi 1966: 497; Waterston 1939; Wichmann 1927b: 379; Willcocks 1913: 37–48; Yunus & Hua 1980: 228. (cc) Buchner 1961: 1–8, 89–102, 136; Halperin & Holzschuh 1984: 24; Neger 1911a: 51; Novak, P. 1952: 416; Wichmann 1955a: 98. (hb) Atkinson et al. 1986: 60; Baeta Neves & Goes 1944: 194–195; Balachowsky 1963a: 1288; Beaver 1957a: 14; Beaver & Browne 1975: 287, 1978: 584; Bodenheimer 1935; Bright 1981b: 117; Bright & Stark 1973: 75; Browne 1939, 1961c: 90; Budge 1949; Burgos & Saucedo 1983: 98; Chamberlin 1939: 317–318; Dalla Torre 1880: 50; Decaux 1890: 1038–1043; Duffy 1953: 3, 7, 9; Eichhoff 1881a: 53, 267; Emden 1924: 187; Fuchs 1904a; Gardner 1934: 14, 1957: 30; Grandi 1951; Halperin & Holzschuh 1984: 24; Henschel 1895a: 189; Herfs 1949: 22–49, 1950: 3–30, 1959; Hill, D. S. 1987: 339; Kalshoven 1951: 856, 1958b: 179; Kleine 1932a: 302, 1934: 156–157, 608–609; Lengerken 1939: 64, 1954: 85; Lepiney & Mimeur 1932: 45; Morstatt 1924: 12; Nordlinger 1855: 184, 1869: 233; Nusslin 1906a: 50; Peyerimhoff 1926: 387; Rao & Janaki 1953: 805; Roonwal 1971a; Rupertsberger 1880: 232; Schedl 1961k: 692; Schouteden 1927: 116; Schroeder 1896: 357; Stark 1952: 339; Tucker 1952: 347; Uyttenboogaart 1927: 40–41; Viana 1964: 122; Wachtl 1876a:

456; Wichmann 1927a: 80, 1927b: 379; Willcocks 1913: 37; Wood, S. L. 1982b: 739; Zacher 1927: 161. (ds) Anonymous 1964h; Atkinson & Equihua 1985b: 236, 1988: 86; Atkinson et al. 1986: 60, 1991: 158; Bach 1854: 123, 130; Baeta Neves 1964: 6; Baeta Neves & Goes 1944: 194–195; Balachowsky 1963a: 1288; Barthe 1896; Beaver 1957a: 14, 1989a: 12; Beaver & Browne 1975: 287, 1978: 584; Bedel 1892: 155; Beeson 1938b: 287, 1939: 283–284, 1941: 371, 1961: 286; Bertolini 1872: 201, 1899: 106; Bhasin, Roonwal, & Singh 1958: 78, 113; Blackwelder 1947: 778; Blackwelder & Blackwelder 1948; Blanchere & Robert 1889; Blandford 1898a: 424, 1898b: 193; Blatchley & Leng 1916: 609; Bodenheimer 1930: 275, 356, 1935; Borchert 1951; Bright 1972d: 66, 1985c: 172; Bright & Stark 1973: 75; Brimblecombe 1954: 14; Browne 1961c: 90; Burgos & Saucedo 1983: 98; Buxton 1920; Bytinski-Salz 1966: 38; Calwer 1884, 1893; Chamberlin 1939: 317–318; Chapuis & Candeze 1853; Costa Lima 1936: 358, 1956: 290; Dejean 1821, 1825, 1837: 332; DeLotto 1947; Diek 1870: 155; Doebner 1862: 184; Donisthorpe 1931: 173; Duftschmidt 1825: 12, 95; Escalera 1919: 107; Fairmaire 1892a: 77, 81; Fauvel 1897: 66; Formanek 1907: 3; Forster 1849: 439; Fricken 1889: 351; Fuchs 1904a: 253; Gardner 1957a; Gaubil 1849: 126; Gebien 1907: 222; Gemminger & Harold 1872: 2687; Gentry, J. W. 1965: 121; Georgiou 1977: 73; Ghesquiere 1933a: 27, 1933b: 776; Gozis 1875: 80; Gredler 1868; Gridelli 1930: 394; Grill 1895: 312; Hagedorn 1910d: 68; Halperin & Holzschuh 1984: 24; Hamilton 1889: 159, 1894b: 406; Henschel 1895a: 189; Henshaw 1895: 44; Heyden, Reitter, & Weise 1883: 182, 1891: 673, 1906: 713; Horion 1951; Kalshoven 1932: 248, 1958: 170; Kaltenbach 1874: 149; Kersten 1933: 77; Kestercanek 1881a: 12; Klebeck & Sjöberg 1960: 230; Kleine 1913b: 137, 1914b: 258, 322, 1928: 302, 1932a: 302, 1934a: 156; Kocher 1961: 253; Kraatz 1869: 59; Lacordaire 1866: 381; Langhoffer 1915a: 65, 75, 1915c: 158; Lee 1971: 31; Lepesme 1944: 237, 1947: 64; Lepesme et al. 1948: 634; Leonardi 1923: 438; Lepiney & Mimeur 1932: 45; Lever 1943a: 14; Linsley 1943: 804–805; Lomnicki 1913b: 148; Lucas 1846: 100; Luigioni 1920: 1–4, 1929: 998; Luna de Carvalho 1950: 15; Lundblad 1958: 489; Martin, H. 1958: 122, 1959; Mathur & Singh 1960b: 63; Mathur, Singh, & Lal 1958: 10; Mathur et al. 1958: 95; Morstatt 1913: 292; Murayama 1957c: 611; Negru 1968a: 456; Nobuchi & Ono 1973: 181; Nonveiller 1984: 40; Novak, P. 1952: 416; Numburg 1958a: 479, 1960b: 160, 1961b: 609; Pachter 1853: 49; Perrot 1955: 64; Peyerimhoff 1926: 387; Pfeiffer 1989a: 58; Pittioni 1943: 176; Pretzel 1941: 8; Ragusa 1924: 117; Rapp 1934: 735; Redtenbacher 1858: 836, 1874: 381; Reitter 1894a: 89, 1906: 713, 1916: 292; Roonwal 1954: 82, 1971a:

1–11; Ross 1919: 83; Sainte-Claire & Mequignon 1938: 447; Schaufuss 1915: 1236; Schaum 1859: 96, 1862: 101; Schedl 1936g: 526, 1959a: 487, 1960f: 22, 52, 1961k: 692, 1962k: 1077, 1963e: 154–155, 1963h: 267, 1964a: 95–97, 1966f: 85–86, 1969g: 285–291, 1970c: 82, 1971d: 426, 1971g: 190, 1972d: 142, 1972n: 351, 1973d: 161, 1977b: 86, 1978d: 73, 1979i: 291, 1980a: 19; Scheerpeltz & Winkler 1930: 257; Schilsky 1888: 122, 1889: 356, 1909: 189; Schiodte 1873: 103; Schmitz 1898: 157; Schwarz 1885: 42; Seidlitz 1891a: 567, 1891b: 613; Sohi & Bata 1972; Souphieff & Scherbinovskaja 1937: 15; Stark 1952: 339; Stein 1868: 114; Stein & Weise 1877: 165; Stierlin 1898: 446; Stierlin & Gautard 1872: 293, 1906: 206; Sturm 1826: 102, 1843: 230; Swaine 1909: 90; Swezey 1928: 185, 1931: 332, 1932: 16, 28, 1936: 202, 1941: 120, 126, 1954: 173; Tordo 1951: 106; Ulke 1902: 56; Van Dyke 1927: 151, 1928; Vassilama-Alexopoulou, Mourikos, & Buchelos 1986; Viana 1964: 122; Villa & Villa 1833: 26; Wachtl 1876a: 456–461; Westhoff 1882: 240; Wichmann 1927a: 80, 1954: 516, 1955a: 98, 100, 103; Wolcott 1936: 318; Wood, S. L. 1977a: 69, 1982b: 739; Yin, Huang, & Li 1984: 151; Yunus & Hua 1980: 228. (tx) Balachowsky 1949a: 182–183, 1963a: 1288; Balachowsky & Mesnil 1935: 602; Bedel 1892c: 155; Beeson 1939: 283–284; Bertolini 1872; Blatchley & Leng 1916: 609; Bright 1963: 104, 1972d: 59, 66, 1985c: 172; Carne et al. 1980; Chamberlin 1939: 317–318; Chapuis & Candez 1853: 235; Dejean 1821, 1825; Duftschmidt 1825: 12, 95; Eggers 1908: 217, 1924: 104–105, 1927b: 399, 1927e: 38–39, 1928a: 117–118, 1928c: 86, 1929e: 42, 1932d: 291, 1935c: 307, 1939b: 8; Eichhoff 1864b: 38–39, 1866: 277, 1877: 120, 1878a: 391, 1878b: 308–315, 1881a: 52–53, 267, 1883a: 115, 141; Fabricius 1801: 387; Fauvel 1889; Ferrari 1867a: 24, 26, 1867b: 114; Fleischer 1927; Fonseca 1930: 87; Fricken 1889: 351; Gardner 1934b; Gebien 1907: 197; Hagedorn 1910a: 94, 1910c: 3–4, 1913a: 325–326; Henschel 1895a: 189; Hopkins 1914: 118, 133, 1915b: 46; Hornung 1842: 115–116; Illiger 1907: 321; Kuhn 1913: 1059; Lacordaire 1866: 381, 391; Lepesme 1944: 237; Letzner 1839: 116–120, 1891: 377; Lovendal 1889b: 72, 1898: 183; Lucas 1920: 194, 1946: 101; Murayama 1957c: 611; Numberg 1958a: 479, 1961b: 609; Perris 1866: 193, 1977: 415; Portevin 1935: 328; Redtenbacher 1858: 836; Reitter 1894a: 89, 1913a: 78, 1916: 292; Rey 1892b: 30; Rupertsberger 1880: 232; Schedl 1933e: 106, 1934f: 1643, 1938e: 10, 1938i: 25, 1942c: 163, 1948i: 113, 1950d: 18, 1950e: 211, 1951d: 17, 1952e: 122–123, 1954a: 139, 1957b: 151, 1961k: 692, 1962k: 1077, 1972d: 142, 1977b: 86, 1980a: 69; Seidlitz 1891a: 567, 1891b: 613; Stark 1952: 339–340; Stierlin 1898: 446; Swaine 1909: 90; Wood, S. L. 1975b: 392, 1982b: 739; Yin, Huang, & Li 1984: 151. (ms) Lucas 1920: 194.

palmicola Hornung 1842: 116 (*Bostrichus*). Syn-types ♀; Ostindien, Früchten von Betelnuss; MNB, Berlin. Synonymy: Balachowsky 1949a: 182.

References: (ds) Gemminger & Harold 1872: 2687; Girard 1880; Swaine 1909: 90. (tx) Balachowsky 1949a: 182; Eichhoff 1881a: 268; Ferrari 1867a: 32; Hornung 1842: 116; Schedl 1961k: 692; Swaine 1909: 90.

tropicus Eichhoff 1878b: 312. Holotype ♀; America meridionalis (Peru); Hamburg Museum, lost. Synonymy: Wood 1992b: 82.

Notes: (1) Eichhoff (1878: 312) states that this taxon is near *dactyliperda* (probably a synonym). Since there is only one known endemic American species of this genus, because the description fits *dactyliperda*, and the type is lost, it is placed in synonymy under that species. References: (ds) Blackwelder 1947: 778; Kleine 1913b: 138, 1914b: 344. (tx) Eichhoff 1878a: 391, 1878b: 312; Hagedorn 1910a: 94; Schedl 1952h: 70.

laboulbenei Decaux 1890: ? (p. 1–16). Syntypes, sex?; Siam; not located. Synonymy: Bedel 1892b: 155.

References: (ds) Bedel 1892b. (tx) Decaux 1890: 1–16; Bedel 1892b: 115; Schedl 1961k: 692.

eggersi Hagedorn 1904g: 449. Syntypes ♀; Hamburg importiert in Steinnüssen aus Ekuador; Hamburg Museum, lost, 1 syntype in USNM, Washington. Synonymy: Schedl 1948i: 113.

References: (ay) Herfs 1949: 26. (cn) Fonseca 1930: 87; Grandi 1951; Hagedorn 1913a; Herfs 1949: 26, 1950: 5, 1958: 421; Kleine 1932a: 302; Ruffinelli 1944: 27; Souphieff & Scherbinovskaja 1937: 88. (cc) Neger 1911a: 51. (hb) Grandi 1951; Hagedorn 1913a; Herfs 1949: 26; Kleine 1932a: 302; Viana 1964: 122. (ds) Blackwelder 1947: 778; Costa Lima 1936; Donisthorpe 1931: 174; Hagedorn 1910d: 68; Kleine 1913b: 137, 1914b: 343, 1932a: 302; Lepesme et al. 1948: 640; Ruffinelli Rey 1976; Souphieff & Scherbinovskaja 1937: 88; Viana 1964: 122. (tx) Anderson, W. H. & Anderson 1971: 12; Eggers 1928c: 86; Hagedorn 1904g: 449, 1910a: 94, 1910e; Schedl 1948i: 113, 1961k: 692, 1979c: 87.

bassiatoris Hopkins 1915b: 47. Holotype ♀; Washington, D.C. [USA]; USNM, Washington. Synonymy: Wood 1975b: 392.

References: (cn) Souphieff & Scherbinovskaja 1937: 88. (hb) Chamberlin 1939: 319. (ds) Blackwelder 1947: 778; Blatchley & Leng 1916: 609; Chamberlin 1939: 319; Kleine 1934a: 156; Murayama 1957c: 611; Souphieff & Scherbinovskaja 1937: 88; Wolcott 1948: 383. (tx) Blatchley & Leng 1916: 609; Chamberlin 1939: 319; Hopkins 1915b: 46–47; Murayama 1957c: 611; Schedl 1950i: 145; Wood, S. L. 1975b: 392.

moreirai Eggers 1928c: 86. Lectotype ♀; Minas

- Garaes, Guaxupe, Brasil; USNM, Washington, designated by Anderson & Anderson 1971: 21. Synonymy: Schedl 1948i: 113.
References: **(cn)** Costa Lima 1956; Souphieff & Scherbinovskaja 1937: 89. **(hb)** Costa Lima 1956. **(ds)** Blackwelder 1947: 778; Costa Lima 1936, 1956; Kleine 1934a: 157; Lepesme et al. 1948: 641; Souphieff & Scherbinovskaja 1937: 89. **(tx)** Anderson, W. H. & Anderson 1971: 21; Costa Lima 1956; Eggers 1928c: 86; Fonseca 1930: 87–92; Lepesme 1944: 238; Schedl 1948i: 113, 1959a: 487, 1961k: 692, 1979c: 159.
- tanganus* Eggers 1935c: 307. Holotype ♀; Ostafrika (Tanga); BMNH, London. Synonymy: Schedl 1948i: 113.
References: **(ay)** Herfs 1949: 22. **(cn)** Herfs 1949: 22, 1950:d, 1958: 422. **(hb)** Herfs 1949: 22; Linsenmaier 1972. **(ds)** Lee 1971: 31; Lepesme et al. 1948: 637. **(tx)** Eggers 1935c: 307; Lepesme 1944: 238; Schedl 1937g: 67–68, 1938e: 10, 1948i: 113, 1959a: 487, 1961k: 692, 1979c: 249.
- borassi* Beeson 1939: 283. Holotype ♀; Coorg; Bhagamandala; FRI, Dehra Dun. Synonymy: Wood 1989: 171.
References: **(cn)** Mathur, Singh, & Lal 1958: 14, 95; **(ds)** Beeson 1961: 286; Bhasin, Roonwal, & Singh 1958; Mathur, Singh, & Lal 1958: 14, 95; Schedl 1959a: 485, 1971a: 281, 1972j: 244. **(tx)** Beeson 1939: 283–284; Browne 1970: 564; Schedl 1948i: 118, 1950f: 39, 1959a: 485–486; Wood, S. L. 1989: 171.
- elaecarpi* Beeson 1939: 284. Syntypes ♀; India: Coorg; Bhagamandala, 3,500 feet; FRI, Dehra Dun. Synonymy: Wood 1989: 171.
References: **(cn)** Mathur, Singh, & Lal 1958: 42, 95. **(ds)** Beeson 1961: 286; Mathur, Singh, & Lal 1958: 42, 95; Schedl 1975e: 449. **(tx)** Beeson 1939: 284–285, 301; Wood, S. L. 1989: 171.
- declivis* Sampson 1914: 390. Syntypes 10 ♀; Seychelles Isl: Silhouette; Mare aux Cochons, Mahe; high forest of Morne Blanc and Pilot, country above Port Claud, near Morne Blanc, forest above Cascade Estate, Mare aux Cochons district; BMNH, London.
Distribution: Africa (Seychelles Islands), Madagascar.
References: **(hb)** Beaver 1987a: 15. **(ds)** Beaver 1987a: 15; Murayama 1957: 613; Sampson 1914: 389; Schedl 1969d: 11, 1977b: 89. **(tx)** Sampson 1914: 389–391; Schedl 1948i: 115, 1950d: 26, 1977b: 89.
- depressus* (Eggers) 1927c: 82 (*Thammurgides*). Holotype ♀; Philippinen: Luzon, Provinz Laguna, Mount Maquiling; USNM, Washington.
Distribution: Philippine Islands.
References: **(ds)** Schedl 1966b: 35. **(tx)** Anderson, W. H. & Anderson 1971: 11; Eggers 1927c: 82–83; Nobuchi 1983: 301.
- distinctus* (Motschulsky) 1866: 403 (*Anodius*). Holotype ♀; type labeled Ceylon, published as Des Montagnes de Nura-Ellia; IZM, Moscow.
Distribution: Antilles Islands (Jamaica/ Puerto Rico), Asia (Sri Lanka), Guam, Hawaii, Micronesia, New Guinea, North America (Honduras/ Florida, Louisiana, Texas in USA), South America (Suriname).
Hosts: *Coccothrinus* sp., *Phoenix* sp. seeds.
References: **(hb)** Deyrup & Atkinson 1987a: 65; Wood, S. L. 1982b: 737. **(ds)** Atkinson & Equihua 1988: 86; Atkinson et al. 1991: 159; Bright 1972d: 67, 1985c: 172; Deyrup & Atkinson 1987a: 65; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 103; Hilburn & Gordon 1989: 689; Kleine 1913b: 161, 1914b: 274; Motschulsky 1866: 403; Wood, S. L. 1977a: 69, 1982b: 737. **(tx)** Bright 1972d: 67, 1985c: 172; Hagedorn 1910a: 153; Motschulsky 1866: 403; Muskus, A. 1984: 87; Wood, S. L. 1969c: 117, 1982b: 737.
- floridensis* Schedl 1948i: 117. Lectotype ♀; Winter Park, Florida [USA]; Schedl Collection in NHMW, Wien. Synonymy: Wood 1969c: 117.
References: **(ds)** Bright 1985c: 173; Murayama 1957c: 611; Schedl 1966f: 79. **(tx)** Bright 1985c: 173; Murayama 1957c: 611; Schedl 1948i: 116–117, 1979c: 98; Wood, S. L. 1969c: 117.
- duplopilosus* (Browne) 1970: 567 (*Thammurgides*). Holotype ♀; Sarawak: Mt. Poi, 4350 ft.; BMNH, London.
Distribution: Indonesia (Borneo, Java).
References: **(tx)** Browne 1970: 567; Schedl 1972q: 256.
- uniseriatus* Eggers 1936e: 85 (*Thammurgides*). Holotype ♀; Java, Preanger; USNM, Washington, preoccupied by Eggers 1927. Synonymy: Schedl 1972q: 256.
References: **(ds)** Schedl 1964c: 304. **(tx)** Anderson, W. H. & Anderson 1971: 35; Eggers 1936e: 85–86; Schedl 1972q: 256, 1979c: 261.
- elongatulus* (Schedl) 1975e: 455 (*Poecilips*). Holotype ♀; Kerala: Cardamon Hills, Valara Fall, a 46 km au sud-ouest de Munnar, 450–500 m; MHNC, Geneve.
Distribution: Asia (Kerala in India).
References: **(tx)** Schedl 1975c: 455. 1979c: 89.
- elongatus* (Eggers) 1923a: 150 (*Dendurgus*). Holotype ♀; Sipora auf der Insel Mentawai; Genueser Museum.
Distribution: Indonesia (Mentawai).
References: **(tx)** Eggers 1923a: 150.
- excavatus* Schedl 1948i: 114. Holotype ♀; Seychelles Islands, Perey sladen Trust; Schedl Collection in NHMW, Wien.
Distribution: Africa (Seychelles Islands).
References: **(ds)** Beaver 1987a: 17. **(tx)** Schedl 1948i: 114, 1979c: 93.

fagi (Nobuchi) 1959a: 12 (*Pocilips*). Syntypes 48, sex?; River Daïdo, Oku-chichibu, Saitama pref., Japan; Nobuchi Collection, Ibaraki.

Distribution: Asia (Japan).

Hosts: *Fagus crenate*.

References: (tx) Nobuchi 1959a: 12.

fallax (Eggers) 1927b: 399 (*Pocilips*). Lectotype ♀; Java; USNM, Washington, designated by Anderson & Anderson 1971: 13.

Distribution: Asia (Andaman Islands, Nicobar Islands in India/ Malaya/ Vietnam), Indonesia (Java), Micronesia (Marshall Islands), Philippine Islands.

Hosts: *Bruguiera gymnorhiza* (seeds), *Carapa obovata*, *Cerriops candolleana*, *Rhizophora* spp., *Xylocarpus gangeticus*.

References: (cn) Browne 1968: 577; Lapis & Valentin 1982; Mathur, Singh, & Lal 1958: 21, 101. (hb) Browne 1938a, 1961c: 93, 1965: 577; Kalshoven 1958b: 178. (ds) Beeson 1961: 292; Browne 1938a, 1961c: 93, 1979: 86, 1981b: 598, 1968: 577; Mathur, Singh, & Lal 1958: 21, 101; Schedl 1936d: 2. (tx) Anderson, W. H. & Anderson 1971: 13; Eggers 1927b: 399–400; Nobuchi 1983: 301; Schedl 1935e: 10, 1939e: 329, 1942a: 170, 1942d: 3; Wood, S. L. 1960a: 47, 50.

fijianus (Schedl) 1942c: 179 (*Pocilips*). Holotype ♀; Fiji; Schedl Collection in NHMW, Wien.

Distribution: Christmas Island, Fiji Islands, Philippine Islands.

References: (cc) Roberts 1976: 386. (hb) Roberts 1976: 386. (ds) Browne 1970: 541, 1974a: 64–65; Murayama 1957c: 630; Roberts 1976: 386; Schedl 1964i: 248, 1979f: 103. (tx) Murayama 1957c: 630; Schedl 1942c: 179, 1950f: 38, 1955b: 284, 1979c: 96.

fulgens (Schedl) 1979g: 99 (*Pocilips*). Holotype ♀; New Guinea: Bulolo, Morobe Distr., Upper Manki L. A.; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1979g: 99.

furcus (Sampson) 1914: 389 (*Dryocoetes*). Holotype ♀; Seychelles: Silhouette; near Mont Pot-a-eau, ca. 1500 ft.; BMNH, London.

Distribution: Africa (Seychelles Islands).

Notes: (1) Browne 1970: 567 (to *Pocilips*, = *Coccotrypes*).

References: (hb) Beaver 1987a: 15. (ds) Beaver 1987a: 15; Sampson 1914: 389; Schedl 1969d: 11. (tx) Browne 1970: 567; Sampson 1914: 389.

gedeanus (Eggers) 1936e: 86 (*Thamnurgides*). Holotype ♀; Java: Mount Gede, 1200 m; Kalshoven Collection.

Distribution: Asia (Burma/ Malaya), Indonesia (Borneo, Java).

Hosts: *Artocarpus* spp., *Balanocarpus heimii* (fruit), *Campnosperma auriculata*, *Canarium* sp., *Dipterocarpus crinitus*, *Dryobalanops aromatica*, *Ficus* spp., *Garcinia merguensis*, *Shorea* spp.

Notes: (1) Schedl 1979c: 103 (Invalid lectotype

designation). (3) Paratypes of *Xyleborus despectus* in NHMW, Wien, are of *gedeanus*; possible synonymy should be checked.

References: (cn) Browne 1968: 577; Mathur & Singh 1960b: 3, 1961a: 40; Mathur, Singh, & Lal 1958: 20, 104. (cc) Beaver 1979b: 298. (hb) Beaver 1979b: 298; Beaver & Browne 1978: 594; Browne 1961c: 94–96, 1968: 577; Kalshoven 1958b: 178. (ds) Beaver & Browne 1978: 594; Beeson 1961: 300; Browne 1961a: 304, 1961c: 94, 1968b: 577; Mathur & Singh 1960b: 3, 1961a: 40; Mathur, Singh, & Lal 1958: 20, 104. (tx) Beeson 1939: 86; Eggers 1936e: 86; Schedl 1958k: 153, 1979c: 103.

grossopunctatus Schedl 1942d: 36 (*Xyleborus*).

Lectotype ♀; Borneo, Tengkuawang; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 113. Synonymy: Schedl 1958k: 153.

References: (tx) Schedl 1942d: 36, 1954c: 154, 1958k: 153, 1979c: 113.

sulcipennis Schedl 1942a: 178 (*Ozopemon*).

Lectotype ♀; Malaya, Selangor, Semangkok, F. R., 2000 fuss; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 246. Synonymy: Schedl 1958k: 153, Browne 1961c: 94.

References: (ds) Numberg 1961b: 609. (tx) Browne 1961c: 94; Numberg 1961b: 609; Schedl 1942a: 178; 1958k: 153, 1979c: 246.

ghesquierei Eggers 1927a: 179. Syntypes ♀; Sanduru, Belgian Congo; MRCB, Tervuren, 1 in BMNH, London, 4 in Schedl Collection in NHMW, Wien.

Figures: Schedl 1960f: 57.

Distribution: Africa (Angola/ Cameroon/ Gabon/ Ghana/ Ivory Coast/ Sierra Leone/ Zaïre).

Hosts: *Anonidium manni*.

References: (bv) Schedl 1960f: 12. (cn) Chesquiere 1933a; Mayne & Donis 1951: 331–332; Schouteden 1927: 114; Souphieff & Scherbinovskaja 1937: 88. (cc) Mayne & Donis 1951: 331; Schedl 1958d: 188. (hb) Lepesme 1947: 637; Pollet 1977; Schedl 1960f: 56; Schouteden 1927: 116. (ds) Ferreira 1965: 1117; Chesquiere 1933a: 33–35, 1933b: 783; Ilargreaves 1937: 509; Kleine 1934a: 157, 616; Mayne & Donis 1960: 102–103, 1962: 303; Pollet 1977; Schedl 1938d: 451, 1957d: 13, 1958d: 188, 1959p: 17, 1960f: 12–114, 1961k: 709, 1964j: 41, 1965e: 352, 1967e: 212, 1979b: 415; Souphieff & Scherbinovskaja 1937: 88. (tx) Eggers 1927a: 179–180, 1932d: 292, 1933b: 8; Murayama 1957: 631; Schedl 1938e: 10, 1948c: 664, 1948i: 113–114, 1960f: 57, 1961k: 709, 1979c: 104.

imitans Eggers 1932d: 293 (*Pocilips*). Holotype ♀; type labeled Congo Belge: Lokolenge, published as Congostaat; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1961k: 709. References: (ds) Murayama 1957c: 631. (tx) Eggers 1932d: 293–294, 1936d: 632; Mura-

yama 1957c: 631; Nunberg 1969a: 382; Schedl 1957d: 13, 1961k: 709, 1979c: 121.

grandis (Eggers) 1927a: 188 (*Poecilips*). Holotype ♀; Belg. Congo: Sankuru; MRCB, Tervuren, 4 cotypes Eggers Collection, in NHMW, Wien.

Figures: Browne 1973b: 690.

Distribution: Africa (Ghana/ Ivory Coast/ Zaïre).

Hosts: *Cynometra hankei*, *Parinari* sp., *Gilbertiodendron dewevrei*.

References: (**bv**) Schedl 1960f: 68. (**cn**) Chesquiere 1933a: 33–36, 1933b: 784; Mayne & Donis 1951: 332. (**ec**) Mayne & Donis 1951: 332. (**ds**) Browne 1973b: 691; Chesquiere 1933a: 33–36, 1933b: 784; Kleine 1934a: 164, 619; Murayama 1957c: 631; Schedl 1960f: 26, 68, 78, 81, 1961k: 724, 1967e: 214, 1979b: 415. (**tx**) Browne 1973b: 690–691; Eggers 1927a: 188; Murayama 1957c: 631; Schedl 1950f: 39, 1961k: 724, 1979c: 109.

graniceps (Eichhoff) 1877a: 120 (*Dryocoetes*). Holotype ♀; Japan; IRSNB, Brussels?

Distribution: Asia (Japan).

Notes: (1) Browne 1970: 566 (to *Coccotrypes*).

References: (**ay**) Herfs 1949: 36. (**cn**) Anonymous 1980g; Hagedorn 1913a; Herfs 1949: 36; Kleine 1932a: 302; Souphieff & Scherbinovskaja 1937: 88. (**hb**) Hagedorn 1913a; Herfs 1949: 36; Kleine 1932a: 302. (**ds**) Anonymous 1980g; Blandford 1894c; Hagedorn 1910d: 68, 1913a; Kleine 1914b: 258, 1932a: 302, 1934a: 157; Murayama 1953a, 1954b: 202, 1957c: 588, 610; Schedl 1966b: 34; Souphieff & Scherbinovskaja 1937: 88. (**tx**) Blandford 1894d: 98; Browne 1939: 107–115, 1970: 566; Eggers 1927a: 179; Eichhoff 1877a: 120, 1878b: 314; Hagedorn 1910a: 94; Murayama 1953a, 1954b: 202, 1957c: 588, 610; Nobuchi 1983: 301; Schedl 1934f: 1642–1643, 1938e: 10; Strohmeier 1911b: 21.

graniceps Eichhoff 1878b: 314. Holotype ♀; Japonia Asiatica; IRSNB, Brussels (?), preoccupied by Eichhoff 1877. Synonymy: Browne 1970: 566.

Notes: (3) The two descriptions by Eichhoff are identical except for the first sentence in the second paragraph; it is obvious that only one name was intended.

References: (**hb**) Browne 1939: 107–115. (**ds**) Hagedorn 1910d: 67; Kleine 1913b: 136–137, 1914b: 290; Sampson 1914: 390. (**tx**) Eichhoff 1878b: 314; Hagedorn 1910a: 96; Sampson 1914: 390.

impressus Eggers 1936d: 632. Holotype ♀; Singapore; USNM, Washington.

Distribution: Asia (Malaya/ Singapore), Indonesia (Borneo).

References: (**ds**) Browne 1961c: 90. (**tx**) Anderson, W. H. & Anderson 1971: 15; Eggers 1936d: 632; Schedl 1938c: 10, 1939c: 328, 1979c: 122.

incognitus (Schedl) 1961f: 89 (*Poecilips*). Holotype ♀; Luzon, Tayabas Cabibihan; Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands (Luzon).

Hosts: *Dipterocarpus vernicifluus*.

References: (**ds**) Schedl 1966b: 35. (**tx**) Nobuchi 1983: 301; Schedl 1961f: 89, 1979c: 123.

jacobsoni (Eggers) 1923a: 149 (*Dendrurgus*). Lectotype ♀; Afr. Njuruk Dempu auf Sumatra; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 129.

Distribution: Asia (Malaya), Indonesia (Sumatra). References: (**tx**) Browne 1961c: 96, 1970: 567; Eggers 1923a: 149, 1925: 157, 1927b: 390, 1936e: 85–86; Schedl 1953c: 289–290, 1965g: 23, 1979c: 129.

japonicus (Eggers) 1926b: 145 (*Poecilips*). Holotype ♀; Takao-Berg b. Hachioji; Nobuchi Collection, Ibaraki.

Figures: Nobuchi 1966d: pl. 3.

Distribution: Asia (Japan).

References: (**ds**) Browne 1961c: 96; Murayama 1948: 2, 1949a: 13, 1951c: 4, 1954b: 167, 1957c: 588; Nobuchi 1966d: 21. (**tx**) Eggers 1926b: 145; Murayama 1954b: 167, 1957c: 588; Nobuchi 1959: 12, 1966d: 21, pl. 3; Schedl 1934f: 1634, 1952k: 160.

klapperichi (Schedl) 1953e: 26 (*Poecilips*). Lectotype ♀; Fukien, Kuatun; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 133.

Distribution: Asia (Fujian in China).

References: (**tx**) Schedl 1953e: 26, 1979c: 133.

kuscheli Schedl 1979f: 104. Holotype ♀; Fiji; Schedl Collection in NHMW, Wien.

Distribution: Fiji Islands.

References: (**tx**) Schedl 1979f: 104.

laevicollis (Schedl) 1957d: 67 (*Poecilips*). Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren.

Distribution: Africa (Ghana/ Zaïre).

Hosts: *Afromosia elata*, *Allanblackia floribunda*, *Chrysophyllum africanum*, *C. lacourtianum*, *Entandrophragma cylindricum*, *Erythrophloeum guineense*, *Gilbertiodendron dewevrei*, *Klaineodoxa gabonensis*, *Mammea africana*, *Myrianthus arboreus*, *Parinari glabra*, *Pycnanthus angolensis*, *Symphonia globulifera*, *Tetraptera*, *Trichilia gilgiana*, *Uapaca guineensis*.

References: (**bv**) Schedl 1960f: 42. (**ec**) Schedl 1961k: 727. (**ds**) Browne 1973b: 686, 1980c: 485, 1980d: 493, 1986c: 661; Mayne & Donis 1962: 310; Nunberg 1961a: 329; Schedl 1960f: 27, 1961k: 727, 1962k: 1078. (**tx**) Browne 1973b: 686; Schedl 1957d: 67, 1961k: 727, 1962k: 1078, 1979c: 135.

laticollis (Browne) 1980: 775 (*Poecilips*). Holotype ♀; Seychelles Islands: Mahe Centre: Morne Blanc, forêt endémique, 667 m; MRCB, Tervuren.

Distribution: Africa (Seychelles Islands).

References: (**hb**) Beaver 1987a: 16. (**ds**) Beaver 1987a: 16. (**tx**) Browne 1980: 775.

leverii Browne 1970: 564. Holotype ♀; Fiji: Navai; BMNH, London.

Distribution: Fiji Islands.

Hosts: *Podocarpus* sp. seeds.

References: **(ds)** Browne 1970: 564, 1974a: 63; Schedl 1979f: 103. **(tx)** Browne 1970: 564.

litoralis (Beeson) 1939: 291 (*Thammurgides*). Holotype ♀; Bengal: Sunderbans Division, Khulna; FRI, Dehra Dun.

Distribution: Asia (Andaman Islands, Bengal in India).

Hosts: *Heritiera fomes*, *H. minor*, *Rhizophora mucronata*.

References: **(cn)** Mathur, Singh, & Lal 1958: 49; Mathur et al. 1958: 104. **(ds)** Beeson 1939: 291, 305, 1961: 300; Mathur, Singh, & Lal 1958: 49; Mathur et al. 1958: 104; Schedl 1975a. **(tx)** Beeson 1939: 291.

longicollis (Eggers) 1927b: 397 (*Thammurgides*). Holotype ♀; Deutsch Neu Guinea; USNM, Washington.

Distribution: New Guinea.

References: **(ds)** Murayama 1957c: 630. **(tx)** Anderson, W. H. & Anderson 1971: 18; Eggers 1927b: 397–398; Murayama 1957c: 630.

longior (Eggers) 1927c: 83 (*Pocillips*). Holotype ♀; Philippinen: Luzon, Provinz Mountain, Balbalon; USNM, Washington.

Distribution: Asia (Fujian, Xizang [Tibet], Yunnan in China/ Assam, Bengal, Nicobar Islands, Tamil Nadu, Uttar Pradesh in India/ Malaya/ Sri Lanka/ Thailand/ Vietnam), Indonesia (Borneo, Java), Philippine Islands.

Hosts: *Acacia pennata*, *Amoora spectabilis*, *Artocarpus* spp., *Butea frondosa*, *Campnosperma auriculata*, *Canarium* sp., *Castinopsis* sp., *Dipterocarpus zeylanicus*, *Ficus roxburghii*, *Macaranga denticulata*, *Myristica dactiloides*, *Pterospermum heyneanum*, *Shorea gysbertsiana*, *S. leprosula*, *Spondias mangifera*, *Terminalia tomentosa*, *Tristania* sp.

Notes: (3) Schedl 1972p: 151 (*silvestris* Beeson, nomen nudum, *apicatus* Beeson, nomen nudum, are synonyms).

References: **(cc)** Beaver 1979b: 298. **(ds)** Beaver & Browne 1975: 294, 1978: 595; Browne 1961c: 97, 1962c: 201, 1965a: 188, 1980a: 372; Schedl 1959a: 489, 1966b: 35, 1971c: 362, 1971f: 148, 1973c: 377. **(tx)** Anderson, W. H. & Anderson 1971: 18; Eggers 1927c: 83, 1941b: 222; Nobuchi 1983: 301; Schedl 1942d: 3, 1950g: 895, 1958b: 100, 1959a: 489, 1972p: 151, 1979c: 141.

oblongus Eggers 1927c: 83 (*Pocillips*). Lectotype ♀; Philippinen: Luzon, Mount Polis; USNM, Washington, designated by Anderson & Anderson 1971: 22. Synonymy: Wood 1989: 171. References: **(hb)** Kalshoven 1958b: 177. **(ds)** Murayama 1957c: 588, 626; Schedl 1966b: 36. **(tx)** Anderson, W. H. & Anderson 1971: 22;

Eggers 1926b, 1927c: 83; Murayama 1957c: 588, 626; Nobuchi 1983: 301; Schedl 1942a: 178, 1942d: 3, 24, 1951i: 50, 1972p: 150, 1979c: 174; Wood, S. L. 1989: 171.

linearis Eggers 1941b: 222 (*Pocillips*). Syntypes ♀; Fukien (Kwangtse); Alexander König Museum, Bonn. Synonymy: Schedl 1972p: 150. References: **(ds)** Browne 1980c: 483; Schedl 1975a. **(tx)** Eggers 1941b: 222; Schedl 1951i: 41, 1972p: 150, 1979c: 139.

nitidipennis Schedl 1950c: 896 (*Pocillips*). Holotype ♀; Java, W. Tjampea, 600 m; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 171.

References: **(hb)** Browne 1961c: 97. **(ds)** Browne 1961c: 97, 1970: 541, 1980a: 372, 1985a: 190; Ohno, Yoshioka, et al. 1988a: 92, 1989: 60; Schedl 1971c: 369. **(tx)** Schedl 1950g: 896, 1979c: 169; Wood, S. L. 1989: 171.

apicatus Schedl 1971c: 372 (*Pocillips*). Holotype ♀; India: Bengal, Samsingh Kalimpong, 1800 m; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 171.

Notes: (3) Beeson 1941: 292 (*apicatus*, nomen nudum, is this species).

References: **(cn)** Roonwal 1954: 33. **(ds)** Beeson 1961: 292; Roonwal 1954: 33. **(tx)** Schedl 1971c: 372–373, 1979c: 23; Wood, S. L. 1989: 171.

luzonicus (Schedl) 1943b: 41 (*Dryocoetes*). Holotype ♀; Mt. Makiling, Laguna, Luzon, Philippinen; Schedl Collection in NHMW, Wien. Distribution: Philippine Islands (Luzon).

Notes: (1) Wood examined the holotype and referred it to *Coccotrypes* (Wood 1981 notes).

References: **(ds)** Murayama 1957c: 608; Schedl 1966b: 41. **(tx)** Murayama 1957c: 608; Nobuchi 1983: 301; Schedl 1943b: 41, 1979c: 143.

magnus Beeson 1939: 283. Syntypes ♀; Burma: Myitkyina; FRI, Dehra Dun.

Distribution: Asia (Burma).

Hosts: *Arenga pinnata*, *A. saccharifera*.

Notes: (3) Syntypes of this taxon are virtually identical with *dactyliperda* except the size is significantly larger (Wood 1981 notes).

References: **(cn)** Mathur, Singh, & Lal 1958: 10, 95; Roonwal 1954: 83; Souphieff & Scherbinovskaja 1937: 88. **(ds)** Beeson 1961: 286; Kleine 1934a: 157; Mathur, Singh, & Lal 1958: 10, 95; Roonwal 1954: 83; Souphieff & Scherbinovskaja 1937: 88. **(tx)** Beeson 1939: 283, 302; Eggers 1936d: 626; Schedl 1938e: 10, 1948i: 118, 1979c: 145.

malgasicus (Schedl) 1961e: 136 (*Pocillips*). Holotype ♀; Madagascar; IRSM, Madagascar.

Distribution: Madagascar.

Hosts: *Eugenia jambolana*.

References: **(ds)** Schedl 1977a: 100. **(tx)** Schedl 1961e: 136, 1977a: 99–100, 1979c: 147.

marginatus (Browne) 1979: 595 (*Poecilips*). Holotype ♀; Malaysia: Penang, Muka Head; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Artocarpus elastica*, *A. scortechini*, *Campnosperma auriculata*.

References: (tx) Browne 1979: 595.

medius (Eggers) 1927c: 84 (*Poecilips*). Syntypes ♀; Philippines: Luzon, Provinz Gamarines sur, Mount Isarog; Eggers Collection, 1 syntype in NHMW, Wien.

Distribution: Asia (Malaya/ Thailand), Fiji, Philippine Islands, Samoa.

Hosts: *Artocarpus* spp., *Campnosperma auriculata*, *Elaeocarpus petiolatus*, *Ficus* spp., *Gonystylus confusus*, *Intsia palembanica*, *Macaranga gigantea*, *Pinus* sp., *Podocarpus indicus*, *Theobroma cacao*.

References: (ec) Beaver 1979b: 298. (hb) Beaver 1979b: 298, 1987a: 16. (ds) Beaver 1976b: 537, 1987a: 16; Beaver & Browne 1978: 596; Browne 1949b, 1961c: 93, 1980d: 492; Schedl 1966b: 35. (tx) Browne 1949b; Eggers 1927c: 84; Nobuchi 1983: 301; Schedl 1938e: 10, 1942a: 170, 1953c: 289, 1979c: 150.

minus (Schedl) 1955b: 291 (*Poecilips*). Holotype ♀; Neu-Guinea, Mt. Hanseman, Astrolabe Bay; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (ds) Murayama 1957c: 630; Schedl 1975i: 346. (tx) Murayama 1957c: 630; Schedl 1955b: 280, 291, 1979c: 154.

minutissimus (Schedl) 1955b: 292 (*Poecilips*). Holotype ♀; Neu-Guinea, Erina Astrolabe Bay; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (ds) Murayama 1957c: 630; Schedl 1962i: 72, 1975i: 346. (tx) Murayama 1957c: 630; Schedl 1955b: 280, 292, 1979c: 156.

minutus Schedl 1975i: 347. New Britain, Rabaul, Keravat; NHMB, Budapest.

Distribution: New Britain Island.

References: (tx) Schedl 1975i: 347.

mjobergi (Schedl) 1971c: 373 (*Poecilips*). Holotype ♀; O. Borneo, Mt. Tibang, 1400 m; NIIR, Stockholm.

Distribution: Indonesia (Borneo).

References: (tx) Schedl 1971c: 373–374.

monoceros (Beeson) 1939: 291 (*Thammurgides*). Syntypes, ♀; Bengal, Lakhimpur division, Dihing reserve; FRI, Dehra Dun.

Distribution: Asia (Bengal in India).

Hosts: *Dipterocarpus pilosus*, *Mesua ferrea*.

References: (cn) Mathur, Singh, & Lal 1958: 40, 104. (ds) Beeson 1961: 300; Mathur, Singh, & Lal 1958: 40, 104. (tx) Beeson 1939: 291–292, 305.

morokensis (Eggers) 1923a: 151 (*Dendurgus*). Holotype ♀; Moroka, Sudost-Neu Guinea; MCG, Genova.

Distribution: New Guinea.

References: (ds) Murayama 1957c: 630. (tx) Eggers 1923a: 151; Murayama 1957c: 630.

myristicae (Roepke) 1919b: 23 (*Thammurgides*). Syntypes ♀; Java; not located.

Figures: Weidner 1963: 537.

Distribution: Asia (Karnataka in India/ Malaya/ Sri Lanka/ Thailand/ Vietnam), Australia, Fiji, Hawaii, Indonesia (Celebes, Java, Sumatra), New Guinea, Philippine Islands, Samoan Islands.

Hosts: *Litsea polyantha*, *Myristica argentea*, *M. fragrans*, *M. macrothyrsa*.

Notes: (3) Schedl 1954a: 147 (*insulindicus* Eggers, nomen nudum, synonymy), 1961f: 90 (described male).

References: (cn) Kalshoven 1932: 246, 1935b: 47, 1951: 855; Mathur, Singh, & Lal 1958: 63, 104; Weidner 1963: 536. (hb) Beaver & Browne 1978: 596; Beeson 1929: 228; Browne 1961c: 90; Kalshoven 1951: 855, 1958b: 179; Roepke 1919b: 23. (ds) Beaver & Browne 1978: 596; Beeson 1929: 228, 1938b, 1939, 1961: 300; Browne 1961c: 90, 1970: 541; Dale 1959: 13; Kalshoven 1932: 246, 1935a: 14, 1935b: 47; Kleine 1934a: 157; Mathur, Singh, & Lal 1958: 63, 104; Murayama 1936b: 115; Schedl 1959a: 489, 1966b: 35, 1971a: 281, 1975j: 293. (tx) Anderson, W. H. & Anderson 1971: 33; Beeson 1929: 228, 1938b: 220, 1939; Eggers 1927c: 81, 1936d: 630; Nobuchi 1983: 301; Roepke 1919b: 23–29; Schedl 1938e: 9–10, 1942c: 180, 1942d: 3, 1951k: 135, 1953b: 123, 1954a: 138–139, 147, 1958b: 100, 1959a: 489, 1961f: 90, 1961j: 351; Weidner 1963: 537.

sundaensis Eggers 1923a: 145 (*Dendurgus*).

Lectotype ♀; Tambang Salida (Ost Sumatra); USNM, Washington, designated by Anderson & Anderson 1971: 33. Synonymy: Schedl 1938e: 10.

References: (ds) Beeson 1938b: 290; Kalshoven 1938: 179, Schedl 1937f: 15. (tx) Anderson, W. H. & Anderson 1971: 33; Beeson 1929: 228; Eggers 1923a: 145, 148, 1927c: 80, 1936d: 630; Schedl 1938e: 10, 1942d: 3, 1948i: 113, 1959a: 491, 1962k: 715.

curtus Eggers 1927c: 80 (*Thammurgides*). Lectotype ♀; Philippines: Mindanao, Agusan River; USNM, Washington, designated by Anderson & Anderson 1971: 11. Synonymy: Schedl 1966b: 36, Beaver & Browne 1978: 596.

Notes: (1) Schedl 1938e: 10 (to *Coccotrypes*). References: (tx) Anderson, W. H. & Anderson 1971: 10; Beaver & Browne 1978: 596; Eggers 1927c: 80; Schedl 1938e: 10, 1950d: 26, 1966b: 36.

calapanus Eggers 1927c: 81 (*Thammurgides*). Holotype ♀; Philippines: Mindoro, Calapan;

- Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1966b: 36, Browne 1979c: 596.
References: (tx) Beaver & Browne 1978: 596; Eggers 1927c: 81; Schedl 1966b: 36, 1979c: 49–50.
- masoni* Beeson 1939: 292 (*Thammurgides*). Syn-types ♀; Coorg: Bhagamandala, Mundrote; FRI, Dehra Dun. Synonymy: Wood 1989: 171.
References: (cn) Mathur, Singh, & Lal 1958: 57, 104. (ds) Beeson 1961: 300; Mathur, Singh, & Lal 1958: 57, 104. (tx) Beeson 1939: 292; Wood, S. L. 1989: 171.
- naidaijinensis* (Murayama) 1957c: 605 (*Dryocoetes*). Holotype ♂; Mt. Naidaijin, Kumamoto pref., Japan; USNM, Washington.
Distribution: Asia (Japan).
Hosts: *Prunus jamasakura*, *P. sp.*, *Zelkova serrata*.
References: (ds) Murayama 1957c: 588, 604. (tx) Murayama 1957c: 588, 604–605; Nobuchi 1985c: 22.
- niger* Eggers 1927a: 180. Lectotype ♀; Ostafrika (Daressalam); Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 166.
Distribution: Africa (Tanzania), Madagascar.
References: (ds) Murayama 1957: 613; Schedl 1977b: 90. (tx) Eggers 1927a: 180–181, 1929b: 112, 1940b: 103; Numberg 1969a: 382; Schedl 1961k: 710–711, 1977b: 90, 1979c: 166.
- nigripes* Eggers 1924: 105. Holotype ♀; Kasai (Ipanu) im Congostaat; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Elacis guineensis*, *Sclerosperma mannii*.
References: (bv) Schedl 1960f: 12. (cn) Ghesquiere 1933a: 33, 35; Kemner 1924: 1–33; Mayne & Donis 1951: 331; Souphieff & Scherbinovskaja 1937: 89. (ec) Mayne & Donis 1951: 331. (ds) Ghesquiere 1933a: 33, 35, 1933b: 776, 783, 786; Lepesme et al. 1948: 636–637; Murayama 1957: 613; Schedl 1960f: 12, 1961k: 711; Schouteden 1927: 114–116; Souphieff & Scherbinovskaja 1937: 89. (tx) Eggers 1924: 105, 1927a: 181, 198; Schedl 1961k: 711, 1979c: 167.
- nigronitens* (Schedl) 1975a: 455 (*Pocillips*). Holotype ♀; India, Andaman Islands, Strait Island; Eggers Collection, in NHMW, Wien.
Distribution: Asia (Andaman Islands in India).
References: (tx) Schedl 1975a: 455, 1979c: 168.
- nitidus* (Eggers) 1923a: 147 (*Dendurgus*). Holotype ♀; Sumatra; Eggers Collection, in NHMW, Wien.
Distribution: Asia (Malaya), Indonesia (Borneo, Java, Sumatra), Fiji, New Guinea.
Hosts: *Dipterocarpus kerrii*, *Livistona conchinchinensis*.
References: (ds) Browne 1961c: 99, 1983b: 77; Schedl 1971c: 369, 1975a. (tx) Beeson 1939: 239; Eggers 1923a: 147–148, 1936e: 86–87; Schedl 1940b: 434, 1942a: 170, 1962q: 493.
- insularis* Eggers 1939d: 223 (*Thammurgides*). Holotype ♀; Fiji Inseln (Lami); Eggers Collection, in NHMW, Wien. Synonymy: Beaver 1991: 88.
References: (ds) Browne 1974a: 65; Murayama 1957c: 630. (tx) Anderson, W. H. & Anderson 1971: 15; Beaver 1991: 88; Eggers 1939d: 223; Murayama 1957c: 630; Schedl 1950f: 39, 1960b: 162, 1979c: 125.
- aterrimus* Schedl 1953c: 298 (*Pocillips*). Lectotype ♀; Malaya, Selangor, Pt. Sinham; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 30. Synonymy: Schedl 1962q: 493, Wood 1989: 171.
References: (hb) Browne 1961c: 98; Kalshoven 1958b: 175. (ds) Browne 1961a: 304, 1961c: 98; Numberg 1961b: 609. (tx) Schedl 1953c: 298, 1962q: 493, 1979c: 30; Wood, S. L. 1989: 171.
- norimasanus* (Murayama) 1954b: 192 (*Dryocoetes*). Holotype, sex?; Norimasa, Gifu pref., Japan; USNM, Washington.
Distribution: Asia (Honshu in Japan).
Hosts: *Abies firma*.
References: (ds) Murayama 1954b: 173, 192, 1957c: 588, 600. (tx) Murayama 1954b: 173, 192, 1957c: 588, 600; Nobuchi 1985c: 22.
- nubilus* (Blandford) 1894d: 95 (*Dryocoetes*). Syn-types 10 ♀; Kiga, Suyama, Japan; BMNH, London.
Figures: Nobuchi 1966d: pl. 3.
Distribution: Asia (Burma/ Sichuan, Xizang [Tibet] in China/ Bengal, Madhya Pradesh, Tamil Nadu, Uttar Pradesh in India/ Japan/ Korea/ Taiwan), Indonesia (Java), Mauritius.
Hosts: *Abies sp.*, *Acacia pennata*, *Anogeissus acuminata*, *Bucklandia populnea*, *Castanopsis hystrix*, *Dalbergia sissoo*, *Eugenia jambolana*, *Grewia tiliacifolia*, *G. vestita*, *Juglans regia*, *Lannea grandis*, *Landera pulcherrima*, *Macaranga denticulata*, *Mallotus philippinensis*, *Odina wodier*, *Pinus roxburghii*, *Shorea robusta*, *Symingtonia populnea*, *Terminalia tomentosa*, *Turpinia nepalensis*.
References: (cn) Shiraki 1952. (ds) Cho 1957, 1963; Choo 1983: 78; Choo & Woo 1985: 165; Hagedorn 1910d: 67; Kleime 1914b: 258; Ko 1969: 281; Murayama 1929b: 2, 1930b: 17, 1931a: 40, 1937b: 375, 1949a: 12, 1949c: 101, 1951c: 4, 1953a: 15, 1953c: 154, 1954b: 173, 1955: 99, 104, 1957c: 588, 626; Nobuchi 1966d: 21, 1967: 20. (tx) Beeson 1939: 300; Blandford 1894d: 95; Choo 1983: 78; Hagedorn 1910a: 96; Murayama 1930b: 17, 21, 1931a: 40, 1937b: 375, 1953a: 15, 1954b: 173, 1955: 99, 104, 1957c: 588, 626; Niisima 1909: 152; Nobuchi 1966d: 21, pl. 3; Schedl 1934f: 1642, 1952k: 160.
- parvus* Beeson 1939: 297 (*Thammurgides*). Holotype ♀; United Provinces: Dehra Dun Division, Lachiwala, 2000 feet; FRI, Dehra Dun,

preoccupied by Sampson. Synonymy: Wood 1989: 171.

References: **(cn)** Mathur & Singh 1960b: 29, 1961a: 45, 1961b: 41; Roonwal 1954: 25. **(ds)** Beeson 1961: 300; Mathur & Singh 1960b: 29, 1961a: 45, 1961b: 41; Roonwal 1954: 25; Schedl 1972a: 144. **(tx)** Beeson 1939: 297; Wood, S. L. 1989: 171.

himalayensis Beeson 1939: 299 (*Thamniurgides*). Holotype ♀; Bengal: Darjeeling division, Rangirum, India; FRI, Dehra Dun. Synonymy: Wood 1989: 171.

References: **(cn)** Mathur & Singh 1960b: 80, 1961a: 82, 1961b: 62. **(ds)** Beeson 1961: 300; Bhasin, Roonwal, & Singh 1958; Mathur & Singh 1960b: 80, 1961a: 82, 1961b: 62. **(tx)** Beeson 1939: 299–300, 304; Wood, S. L. 1989: 171.

corticus Beeson 1939: 298 (*Thamniurgides*). Holotype ♀; United Provinces: Dehra Dun division, Jhahjra; FRI, Dehra Dun. Synonymy: Wood 1989: 171.

References: **(cn)** Mathur & Singh 1961a: 45, 1961b: 41. **(ds)** Beeson 1939: 298, 1961: 300; Mathur & Singh 1961a: 45, 1961b: 41. **(tx)** Beeson 1939: 298; Schedl 1972q: 257; Wood, S. L. 1989: 171.

brevipilosus Beeson 1939: 298 (*Thamniurgides*). Holotype ♀; Bengal: Darjeeling division, Rangirum; FRI, Dehra Dun. Synonymy: Wood 1989: 171.

References: **(cn)** Mathur & Singh 1960b: 80, 1961a: 82. **(ds)** Beeson 1961: 299–300; Mathur & Singh 1960b: 80, 1961a: 82; Murayama 1957c: 611; Schedl 1963f: 55, 1973d: 163, 1976a: 51. **(tx)** Beeson 1939: 298–299, 302; Murayama 1957c: 611; Schedl 1951k: 148–149, 1963f: 56, 1979c: 46; Wood, S. L. 1989: 171.

mauritanus Browne 1970: 569 (*Poecilips*). Holotype ♀; Mauritius: Curepipe; BMNH, London. Synonymy: Schedl 1972q: 257; Wood 1989: 171.

References: **(tx)** Browne 1970: 569; Schedl 1972q: 257; Wood, S. L. 1989: 171.

obtusicollis (Schedl) 1975a: 455 (*Poecilips*). Holotype ♀; Malaya: Selangor; Schedl Collection in NHMW, Wien.

Distribution: Asia (Malaya).

References: **(ds)** Schedl 1975a: 455, 1979c: 175.

omissus Schedl 1979g: 101. Holotype ♀; Papua New Guinea, Bulolo, Morobe District, Upper Manki L. A.; Schedl Collection in NHMW, Wien. Distribution: New Guinea.

References: **(tx)** Schedl 1979g: 101.

palmarum Eggers 1933b: 8. Holotype ♀; Franz. Guayana (Haut-Carvenne); MNHN, Paris. Figures: Pedrosa-Macedo & Schonherr 1985: 18. Distribution: South America (Brazil/ Cayenne/ Peru).

Hosts: Palm fruits.

References: **(cn)** Souphieff & Scherbinovskaja 1937: 89. **(ds)** Blackwelder 1947: 778; Lepesme et al. 1948: 639; Murayama 1957c: 611; Nunberg 1972b: 191; Pedrosa-Macedo & Schonherr 1985: 18; Schedl 1960a: 77, 1966f: 85, 1970e, 1972g: 43, 1976a: 51; Souphieff & Scherbinovskaja 1937: 89. **(tx)** Eggers 1933b: 2, 8; Murayama 1957c: 611; Pedrosa-Macedo & Schonherr 1985: 18; Schedl 1948i: 116, 1957a: 193, 1960b: 163, 1979c: 182.

papuanus (Eggers) 1923a: 148 (*Dendurgus*). Lectotype ♀; Andai auf Neu Guinea; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 183.

Distribution: Asia (Assam, Bengal, Punjab, Uttar Pradesh in India/ Malaya/ Vietnam), Indonesia (Borneo, Sumatra), New Guinea, Philippine Islands.

Hosts: *Dipterocarpus pilosus*, *Eugeissona insignis*, *Eugenia formosa*, *Mallotus* sp., *Melicope* sp., *Mesua ferrea*, *Myristica* sp., *Nephilium lichi*, *Quercus spicata*, *Terminalia myriocarpa*.

Notes: (3) Schedl 1966b: 36 (*sumatranus* Eggers, nomen nudum, synonymy).

References: **(cn)** Browne 1968: 578. **(hb)** Beaver & Browne 1978: 596; Browne 1968: 578. **(ds)** Beaver & Browne 1978: 596; Browne 1961a: 304, 1961c: 99, 1966: 246, 1968b: 578, 1980a: 370, 1980c: 484, 1986c: 661; Murayama 1957c: 630; Ohno, Yoshioka, et al. 1988a: 92; Schedl 1961c: 70, 1966b: 36, 1968e: 262, 1975e: 449, 1975i: 346. **(tx)** Beeson 1939: 287; Eggers 1923a: 147–148; Murayama 1957c: 630; Nobuchi 1983: 301, Schedl 1942c: 179, 1958b: 100, 1958h: 498, 1960h: 105, 1966b: 36, 1979c: 183.

glandis Beeson 1939: 287 (*Thamniurgides*). Holotype ♀; Bengal: Kalimpong division, Samsing; FRI, Dehra Dun. Synonymy: Schedl 1960i: 105.

References: **(cn)** Mathur & Singh 1961b: 34; Mathur, Singh, & Lal 1958: 40, 104. **(ds)** Beeson 1961: 300; Mathur & Singh 1961b: 34; Mathur, Singh, & Lal 1958: 40, 104. **(tx)** Beeson 1939: 287, 304; Schedl 1960i: 105.

rubidus Beeson 1939: 290 (*Thamniurgides*). Holotype ♀; Bengal: Kalimpong division, Samsing 1,800 feet; FRI, Dehra Dun. Synonymy: Schedl 1974f: 334, Wood 1989: 171.

References: **(cn)** Mathur, Singh, & Lal 1958: 40, 45, 61, 104. **(ds)** Beaver & Browne 1978: 596; Beeson 1961: 300; Mathur, Singh, & Lal 1958: 40, 45, 61, 104. **(tx)** Beeson 1939: 290, 306; Schedl 1974f: 334; Wood, S. L. 1989: 171.

decipiens Browne 1972b: 21 (*Poecilips*). Holotype ♀; Malaya: Kepong Forest Research Institute insectary; BMNH, London. Synonymy: Schedl 1974f: 334.

References: **(tx)** Browne 1972b: 21; Schedl 1974f: 334.

parvus **Sampson** 1914: 391. Syntypes 2 ♀; Seychelles Isl, Mahe: high forest of Morne Blanc and Pilot, Praslin; Cotes d'Or Estate, Coco-de-mer forest; BMNH, London.

Distribution: Africa (Seychelles Islands).

References: **(ds)** Beaver 1987a: 17; Schedl 1969d: 11. **(tx)** Sampson 1914: 391.

perditor **Blandford** 1894d: 99. Syntypes 5 ♀; Nagasaki, Japan; BMNH, London.

Distribution: Asia ("China"/ Japan), Micronesia (Koror in Palau Islands).

References: **(cn)** Leefmans 1923: 1–94; Souphieff & Scherbinovskaja 1937: 89; Vayssiere 1923: 11. **(ds)** Blandford 1894c; Hagedorn 1910d: 68; Hargreaves 1927: 113–128, 1937: 509, 520; Kleine 1913b: 138, 1914b: 258, 1934a: 157; Lepesme et al. 1948: 635; Murayama 1954b: 202, 1957c: 588, 611; Souphieff & Scherbinovskaja 1937: 89; Vayssiere 1923: 111. **(tx)** Blandford 1894d: 99; Eggers 1929b: 112; Hagedorn 1910a: 94; Murayama 1954b: 202, 1957c: 588, 611; Schedl 1934f: 1643.

petioli (**Browne**) in Beaver & Browne 1978: 596 (*Pocilips*). Holotype ♀; Malaysia: Penang, Muka Head; BMNH, London.

Figures: Beaver & Browne 1978: 576.

Distribution: Asia (Malaya).

Hosts: *Artocarpus scortechini* (leafstalks), *Ficus bracteata*, *F. xylophylla*, *F. spp.*

References: **(cc)** Beaver 1979b: 298. **(hb)** Beaver 1979b: 298; Beaver & Browne 1978: 596. **(tx)** Beaver & Browne 1978: 576.

politus (**Browne**) 1970: 568 (*Pocilips*). Holotype ♀; Sarawak: Mount Penrissen, 4350 ft.; BMNH, London.

Distribution: Indonesia (Sarawak in Borneo).

References: **(ds)** Schedl 1971c: 368. **(tx)** Browne 1970: 568.

priesneri **Schedl** 1950d: 25. Lectotype ♀; Gold Coast; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 198.

Distribution: Africa (Ghana).

Hosts: *Myristica fragrans*.

References: **(bv)** Schedl 1960f: 23. **(ds)** Schedl 1960f: 23. **(tx)** Schedl 1950d: 16, 25, 1954e: 47, 1960f: 23, 63, 1961k: 711–712, 1979c: 198.

pterydiphytae (**Schedl**) 1968e: 266 (*Pocilips*). Holotype ♀; New Guinea, Bulolo, Rifle Range; CSIRO, Canberra.

Figures: Gray 1970: 581.

Distribution: New Guinea.

Hosts: *Pteridium aquilinum*.

References: **(bv)** Gray, B. 1974c. **(cc)** Gray, B. 1970: 578–585. **(hb)** Gray, B. 1970: 578–585, 1974c. **(ds)** Gray, B. 1970: 578–585. **(tx)** Gray, B. 1970: 578–585; Schedl 1968e: 266, 1979c: 202.

pubescens **Schedl** 1948i: 119. Holotype ♀; Cuba, Sierra Bonilla; Schedl Collection in NHMW, Wien.

Distribution: Antilles Islands (Cuba).

Notes: (3) A possible synonym of *carpophagus*.

References: **(ds)** Murayama 1957c: 611. **(tx)** Murayama 1957c: 611; Schedl 1948i: 119, 1979c: 202.

punctatus (**Eggers**) 1927c: 82 (*Thamnurgides*). Holotype ♀; Philippinen: Mindoro, Subaan; Eggers Collection, in NHMW, Wien.

Distribution: Philippine Islands (Mindoro).

References: **(ds)** Numberg 1961b: 609; Schedl 1966b: 37. **(tx)** Eggers 1927b: 399, 1927c: 82, 85; Schedl 1966b: 34, 1979c: 205.

queenslandi (**Schedl**) 1942c: 180 (*Pocilips*). Lectotype ♀; Australien. Queensland, Kuranda; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 209.

Distribution: Australia (Queensland), New Guinea.

References: **(ds)** Murayama 1957c: 630; Schedl 1964c: 305, 1975i: 346. **(tx)** Murayama 1957c: 630; Schedl 1942c: 180, 1979c: 209.

reticollis (**Schedl**) 1970d: 235 (*Pocilips*). Holotype ♀; Madagascari, Perinet; MNHN, Paris.

Distribution: Madagascar.

Hosts: *Pinus khasya*.

References: **(tx)** Schedl 1970d: 235–236, 1977b: 100, 1979c: 210.

regularis (**Schedl**) 1955b: 292 (*Pocilips*). Holotype ♀; Neu-Guinea, Sattelberg; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: **(ds)** Murayama 1957c: 630. **(tx)** Murayama 1957c: 630; Schedl 1955b: 280, 292.

rhizophorae (**Hopkins**) 1915b: 48 (*Spermatoplex*). Holotype ♀; Miami, Florida; USNM, Washington.

Figures: Woodruff 1970: 1–2 (adult).

Distribution: Asia (Burma), Galapagos Islands (Albermarle), Indonesia (Borneo, Java, Sumatra), North America (Veracruz in Mexico/ Florida in USA).

Hosts: *Rhizophora mangle*, *R. mucronata*, rare in *Acacia* sp., *Dipterocarpus* sp., *Lansium domesticum*, *Nephelium lappaceum*, *L. sp.*

References: **(cn)** Anonymous 1970h; Doane et al. 1936; Miller, J. W. 1979: 8; Woodruff 1970. **(cc)** Onuf, Teal, & Valiela 1977; Woodruff 1970. **(hb)** Atkinson & Equihua 1955b: 236; Chamberlin 1939: 319; Doane et al. 1936; Kalshoven 1958b: 175; Rabinowitz 1977; Wood, S. L. 1982b: 734; Woodruff 1970. **(ds)** Anonymous 1970h; Atkinson & Equihua 1955b: 236; Blatchley & Leng 1916: 610; Browne 1961c: 97; Chamberlin 1939: 319; Kleine 1934a: 156; Schedl 1959a: 489; Wood, S. L. 1977a: 69, 1982b: 734; Woodruff 1970. **(tx)** Beeson 1939: 297; Blatchley & Leng 1916: 610; Chamberlin 1939: 319; Eggers 1923a: 149–151, 1925: 157, 1927b: 390; Hopkins 1915b: 48; Schedl 1952k: 160, 1953c: 289, 1958b: 100, 1959a: 489, 1961k: 718, 1979c: 211; Wood, S. L. 1982b: 734; Woodruff 1970.

rhizophorae Eggers 1923: 149 (*Dendrurgus*).

- Lectotype ♀; Insel Saleyer und Moeara Antjol (Sumatra); Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 211, preoccupied by Hopkins 1915. Synonymy: Schedl 1952k: 160.
References: (cn) Mathur, Singh, & Lal 1958: 5. (ds) Browne 1961c: 98; Mathur, Singh, & Lal 1958: 5; Schedl 1964g: 241, 1971c: 364, 1971f: 148, 1975e: 449. (tx) Eggers 1923: 149; Schedl 1938e: 10, 1952k: 160, 1979c: 211.
- nephelii* Eggers 1936e: 84 (*Thamnurgides*). Holotype ♀; Java (Buitenzorg); BMNH, London. Synonymy: Kalshoven 1958b: 176.
Notes: (3) Schedl 1979c: 125 (*Thamnurgides punctipennis* Eggers, nomen nudum, synonymy).
References: (cn) Mathur et al. 1958: 104; Roonwal 1954: 27. (hb) Browne 1961c: 98; Kalshoven 1958b: 176. (ds) Beeson 1961: 300; Kalshoven 1935a: 14, 1958: 176; Kleine 1934a: 164; Mathur et al. 1958: 104; Roonwal 1954: 27. (tx) Eggers 1936e: 84–85; Kalshoven 1958b: 176; Schedl 1938e: 10, 1939e: 329, 1953c: 289, 1958h: 498, 1964g: 241, 1979c: 125.
- shanorum* Beeson 1939: 296 (*Thamnurgides*). Holotype ♀; Burma: Northern Shan States, Maymyo; FRI, Dehra Dun. Synonymy: Wood 1989: 171.
References: (ds) Beeson 1961: 300. (tx) Beeson 1939: 296–297, 306; Wood, S. L. 1989: 171.
- robustus* Wood 1989: 178. Holotype ♀; Ceylon, Matale, 400 m; MHNG, Geneva, automatic.
Distribution: Asia (Malaya/ Sri Lanka), New Guinea.
References: (ds) Schedl 1973c: 377, 1975i: 346, 1975j: 293. (tx) Wood, S. L. 1989: 178.
- robustus* Schedl 1972j: 227 (*Pocilips*). Holotype ♀; Ceylon (Matale, 400 m; MHNG, Geneva, preoccupied by Eichhoff 1878).
References: (tx) Schedl 1972j: 227, 1979c: 213; Wood, S. L. 1989: 178.
- robustus* Eichhoff 1878b: 313. Syntypes ♀; Cuba; Hamburg Museum, lost.
Distribution: Antilles Islands (Cuba/ Puerto Rico), North America (Florida).
Hosts: *Eutrepe globosa* seeds.
References: (hb) Chamberlin 1939: 319; Wood, S. L. 1982b: 736. (ds) Atkinson et al. 1991: 159; Blackwelder 1947: 778; Chamberlin 1939: 319; Kleine 1914b: 378; Leng & Mutchler 1917: 220; Schedl 1975a; Wood, S. L. 1982b: 736. (tx) Bright 1985c: 173; Chamberlin 1939: 319; Eichhoff 1878a: 391, 1878b: 313; Hagedorn 1910d: 45; Hopkins 1915b: 45; McNamara 1984: 758; Schedl 1948i: 119, 1972j: 227; Wood, S. L. 1975b: 392, 1982b: 736.
- cylindricus* Schedl 1948i: 116. Holotype ♀; Crucos, Cuba; Schedl Collection in NHMW, Wien. Synonymy: Wood 1975b: 393.
- References: (ds) Murayama 1957c: 611. (tx) Murayama 1957c: 611; Schedl 1948i: 116, 1979c: 73; Wood, S. L. 1975b: 392.
- rotundicollis* (Eggers) 1927a: 186 (*Pocilips*). Holotype ♀; Belg. Congo: Sankuru; MRCB, Tervuren.
Distribution: Africa (Angola/ Cameroon/ Equatorial Guinea/ Ivory Coast/ Zaire), Madagascar.
Hosts: *Chrysophyllum africanum*, *Homalium* sp., *Klainedoxa gabonensis*, *Oxystigma oxyphyllum*, *Pachyclasma* sp., *Pentadesma butyracca*, *Ricinus odendron heudelotii*, *Staudia gabonensis*.
References: (cn) Chesquiere 1933a; Mayne & Donis 1951: 332. (ec) Mayne & Donis 1951: 332. (ds) Chesquiere 1933a; Kleine 1934a: 164; Murayama 1957c: 631; Schedl 1939e: 329, 1959a: 490, 1960e: 172, 1971g: 191. (tx) Eggers 1927a: 186; Murayama 1957c: 631; Schedl 1938e: 10, 1955f: 258, 1957d: 13, 1979c: 213.
- congomus* Eggers 1927a: 187 (*Pocilips*). Holotype ♀; Belg.-Congo, Sankuru; MRCB, Tervuren, preoccupied by Eggers 1924. Synonymy: Schedl 1957d: 13, 1961: 719.
References: (bv) Schedl 1960f: 12. (cn) Rees 1963b. (ec) Rees 1963b; Schedl 1961k: 719. (hb) Loytyniemi, Beaver, & Loytyniemi 1984; Schedl 1960f: 49. (ds) Beaver & Loytyniemi 1985a: 67; Browne 1973b: 687, 1975b: 394; Ferreira 1965: 1116; Mayne & Donis 1962: 309; Schedl 1959p: 17, 1960h: 12, 1961k: 691, 1962k: 1077, 1964e: 68, 1964j: 41, 1965e: 352, 1967e: 212, 1972: 281, 1977d: 278. (tx) Browne 1973b: 687; Eggers 1927a: 187; Nunberg 1965b: 22; Schedl 1957d: 13, 1961k: 719, 1979c: 62.
- rugulosus* Eggers 1932d: 294 (*Pocilips*). Holotype ♀; Congostaat (Sankuru); Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1961k: 719.
References: (ds) Murayama 1957c: 631. (tx) Eggers 1932d: 294; Murayama 1957c: 631; Schedl 1957d: 13–14, 1961k: 719, 1979c: 217.
- laticus* Eggers 1940b: 104 (*Pocilips*). Syntypes ♀; Congostaat, Yangambi; MRCB, Tervuren, 4 Eggers cotypes in NHMW, Wien. Synonymy: Schedl 1957d: 13.
References: (ds) Nunberg 1952: 19, 1965b: 19; Murayama 1957c: 631. (tx) Eggers 1940b: 104–105; Murayama 1957c: 631; Nunberg 1952: 19; Schedl 1953g: 242, 1957d: 13, 1979c: 137.
- subtuberculatus* Eggers 1940b: 105 (*Pocilips*). Holotype ♀; Congostaat: Eala; MRCB, Tervuren. Synonymy: Schedl 1957d: 14.
References: (ds) Mayne & Donis 1960: 104–105, 1962: 310; Murayama 1957c: 631. (tx) Eggers 1940b: 105, 107; Murayama 1957c: 631; Schedl 1951e: 38, 1954d: 870, 1957d: 14, 1961k: 720, 1979c: 245.
- intermedius* Eggers 1940b: 107 (*Pocilips*). Holo-

type ♀; Congostaat; MRCB, Tervuren. Synonymy: Browne 1973b: 687.

References: (bv) Schedl 1960f: 42. (cn) Mayne & Donis 1951: 332. (ec) Mayne & Donis 1951: 332; Schedl 1961k: 725. (hb) Cachan 1957: 15, 42–43; Pollet 1977; Schedl 1961k: 725. (ds) Mayne & Donis 1962: 309; Murayama 1957c: 631; Pollet 1977; Schedl 1960f: 42, 1961k: 725, 1979b: 415. (tx) Browne 1973b: 687; Eggers 1940b: 107; Murayama 1957c: 631; Schedl 1950c: 204, 1957d: 67, 1961k: 725, 1979c: 127.

rugicollis (Eggers) 1925: 157 (*Thammurgides*). Syntypes ♀; Tenasserim; 2 in Prague Museum, 1 deposited in Eggers Collection, in NHMW, Wien. Distribution: Asia (Burma/ Fujian in China/ Malaya/ Sri Lanka/ Vietnam). References: (ds) Browne 1961c: 97; Schedl 1959a: 490, 1960e: 172, 1971a: 276. (tx) Beeson 1939: 295–296; Eggers 1925: 153–158; Schedl 1939e: 329, 1959a: 490, 1979c: 216.

rutschuruensis Eggers 1940b: 103. Holotype ♀; Congostaat, Rutschuru; MRCB, Tervuren.

Distribution: Africa (Ghana/ Somalia/ Zaire), North America (introduced: California in USA).

Hosts: *Anona museusi*, *Phoenix reclinata*, *Triplochiton scleroxylon*.

Notes: (3) California series in Wood Collection.

References: (bv) Schedl 1960f: 58. (hb) Lepesme 1947: 637. (ds) Schedl 1960f: 23, 58, 108, 1961k: 712; Thompson, G. H. 1963: 35. (tx) Eggers 1940b: 103; Murayama 1957: 613; Schedl 1954e: 50, 1961k: 712, 1979c: 217.

salakensis (Schedl) 1939f: 38 (*Pocillips*). Lectotype ♀; Mount Salak, Java; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 218. Distribution: Asia ("China"/ Andaman Islands, Assam, Bengal in India/ Sri Lanka/ Vietnam), Indonesia (Java), Philippine Islands.

Hosts: *Amoora wallichii*, *Artocarpus chaplaska*, *Gmelina arborea*, *Heritiera fomes*, *Myristica dactyloides*, *Terminalia bialata*.

References: (ds) Kalshoven 1958: 177; Schedl 1959a: 490, 1965a: 339, 1971a: 281, 1972j: 224, 1973c: 377, 1975e: 449. (tx) Schedl 1939f: 38, 1959a: 490, 1979c: 218.

punctatus Eggers 1927f: 85 (*Pocillips*). Syntypes ♀; Philippines: Mindoro, Subaan; Eggers Collection, in NHMW, Wien, preoccupied by Eggers 1927.

Notes: (1) Schedl 1979c: 205 (citation of holotype invalid).

References: (tx) Eggers 1927b: 85; Schedl 1966b: 34, 1979c: 205.

opacifrons Beeson 1939: 294 (*Thammurgides*). Holotype ♀; Bengal: Buxa division; FRI, Dehra Dun. Synonymy: Wood 1989: 171.

References: (cn) Mathur & Singh 1960b: 17, 1961b: 26; Roonwal 1954: 33, 66. (ds) Beeson 1939: 294, 1961: 300; Mathur & Singh 1960b:

17, 1961b: 26; Roonwal 1954: 33, 66. (tx) Schedl 1942a: 178, 1942d: 24; Wood, S. L. 1989: 171.

acuminatus Schedl 1966b: 34 (*Pocillips*). Syntypes ♀; Philippines: Mindoro, Subaan; Eggers Collection, in NHMW, Wien, automatic. Synonymy: Wood 1989: 171.

References: (ds) Schedl 1966b: 34. (tx) Nobuchi 1983: 301; Schedl 1966b: 34; Wood, S. L. 1989: 171.

sammio (Schaufuss) 1897: 110 (*Pocillips*). Syntypes ♀; Gabun; Hamburg Museum, lost, 1 syntype in USNM, Washington.

Figures: Schedl 1960f: 50.

Distribution: Africa (Angola/ Cameroon/ Equatorial Guinea/ Gabon/ Ghana/ Ivory Coast/ Sierra Leone/ Zaire).

Hosts: Schedl 1960f: 28–29 (40 host species reported).

Notes: (3) Schedl 1961k: 730 (*Pocillips dubius* Eggers, nomen nudum, synonymy in Schedl 1963h: 267). Schedl 1963h: 267 (*sublaevis* Eggers, nomen nudum, synonymy).

References: (bv) Schedl 1960f: 42. (cn) Ghesquiere 1933a: 34–36, 1933b: 776–777, 784; Mayne & Donis 1951: 332; Pujol 1957: 245. (ec) Mayne & Donis 1951: 332–333; Schedl 1961k: 728. (hb) Browne 1963a: 237; Jones, Roberts, & Baker 1959: 23; Lepesme 1947: 643; Roberts 1969: 126; Schedl 1961k: 728; Thompson, G. H. 1963: 60; Wichmann 1954: 517. (ds) Browne 1963a: 237, 1966: 247; Ferreira 1965: 1118; Ghesquiere 1933a: 34–36; Hagedorn 1910d: 77; Kleine 1913b: 145, 1914b: 312, 1934a: 164; Mayne & Donis 1962: 310; Murayama 1957c: 631; Numberg 1952: 19, 1965b: 19; Schedl 1959p: 17, 1960f: 42, 1961j: 349, 1961k: 728, 1963f: 55, 1963h: 267, 1964e: 68, 1964j: 41, 1965e: 352, 1965g: 20, 25, 1966b: 37, 1967e: 214; Swezey 1941: 120; Thompson, G. H. 1963: 60. (tx) Beeson 1938: 290, 1939: 285, 298; Eggers 1927a: 185–186, 1927c: 83, 1940b: 106–107; Hagedorn 1910a: 112; Hopkins 1914: 127, 135; Murayama 1957c: 631; Numberg 1952: 19; Schaufuss 1897: 110; Schedl 1938c: 9, 1938e: 10–11, 1939e: 345, 1941f: 112, 1942d: 3, 1954d: 870, 1954e: 50, 1955b: 292, 1955f: 258, 1957d: 14, 1959p: 18, 1960f: 50, 1961j: 349, 1961k: 728, 1963h: 267, 1964k: 217, 1965g: 20; Wood, S. L. 1966b: 28, 1973c: 174.

bambesamus Eggers 1940b: 107 (*Pocillips*). Holotype ♀; Congostaat (Bambesa); MRCB, Tervuren. Synonymy: Schedl 1957d: 13.

References: (ds) Murayama 1957c: 631. (tx) Eggers 1940b: 107; Murayama 1957c: 631; Schedl 1957d: 13, 1961k: 730, 1963h: 267, 1979c: 33.

sculptilis (Schedl) 1965c: 60 (*Pocillips*). Holotype ♀; Madagascar-Est, det. Sambawa; Marojejy, Ambalosoatra 1700 m; Ankazobe, foret Ambohitantely, Perinet; Sambirano. Nosy-Be, foret de Lokobe; IRSM, Madagascar.

- Distribution: Madagascar.
References: **(tx)** Schedl 1965c: 60, 1977b: 100, 1979c: 223.
- similis (Eggers)** 1923a: 148 (*Dendrugus*). Lectotype ♀; Deutsch Neu Guinea, Kaiserin Augustafluss; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 229.
Distribution: New Guinea.
References: **(ds)** Murayama 1957c: 630. **(tx)** Beeson 1939: 290; Eggers 1923a: 145, 148; Murayama 1957c: 630; Schedl 1954a: 138, 1955b: 290, 1979c: 229.
- solomonicus (Browne)** 1968c: 112 (*Pocilips*). Holotype ♀; Rennell Island, Niupani; UZMC, Copenhagen.
Distribution: Solomon Islands (Rennell Island).
References: **(tx)** Browne 1968c: 112.
- sparsepilosus (Eggers)** 1940b: 106 (*Pocilips*). Holotype ♀; Congostaat (Bambesa); MRCB, Teruren.
Distribution: Africa (Congo/ Zaire), Madagascar.
Hosts: *Annonidium nannii*.
Notes: (3) Schedl 1967e: 228 (described male).
References: **(hv)** Schedl 1960f: 23. **(cn)** Mayne & Donis 1951: 333. **(ec)** Mayne & Donis 1951: 333. **(ds)** Murayama 1957c: 631; Schedl 1960f: 23, 59, 1961k: 713, 1967e: 213, 1977a: 90. **(tx)** Eggers 1940b: 106; Murayama 1957c: 631; Schedl 1950c: 204, 1955f: 258, 1961k: 713, 1967e: 226–228, 1977b: 90, 1979c: 232.
- sparserugosus (Schedl)** 1972h: 62 (*Pocilips*). Holotype ♀; New Guinea, Sattelberg, Huon Gulf; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: **(tx)** Schedl 1972h: 62, 1979c: 233.
- spinipennis (Schedl)** 1955b: 293 (*Pocilips*). Holotype ♀; Neu-Guinea, Mt. Hanseman, Astrolabe Bay; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: **(ds)** Murayama 1957c: 630. **(tx)** Murayama 1957c: 630; Schedl 1955b: 280, 293.
- squamifer (Schedl)** 1975f: 355 (*Pocilips*). Holotype ♀; New Guinea, Mt. Pabinama, Normandy Isl., 820 m; AMNH, New York.
Distribution: New Guinea.
References: **(tx)** Schedl 1975f: 355.
- striatus Eggers** 1920: 33. Holotype ♀; Bomole (Deutsch-Ostafrika); Hamburg Museum, lost.
Distribution: Africa (Tanzania).
References: **(ds)** Beaver 1987b: 9; Browne 1966: 247, 1986c: 661; Schedl 1966b: 39. **(tx)** Eggers 1920: 33–34; Murayama 1957: 613; Nobuchi 1983: 301; Schedl 1961k: 713.
- strigicollis Schedl** 1972j: 228. Holotype ♀; Ceylon: Kandy, 600 m foret pres du Chalet Guesthouse; MHNG, Geneve.
Distribution: Asia (Tamil Nadu in India/ Sri Lanka).
- References: **(ds)** Schedl 1975e: 450. **(tx)** McNamara 1977: 195; Schedl 1972j: 228, 1979c: 238.
- suavi (Schedl)** 1973f: 70 (*Pocilips*). Holotype ♀; Dava Dawa, M. Bay Distr.; AMNH, New York.
Distribution: New Guinea.
References: **(tx)** Schedl 1973f: 70, 1979c: 239.
- subacuminatus (Eggers)** 1927b: 399 (*Pocilips*). Holotype ♀; Deutsch Neu Guinea; USNM, Washington.
Distribution: Asia (Malaya), New Guinea.
Hosts: *Shorea macroptera*.
References: **(ds)** Murayama 1957c: 630; Schedl 1971c: 364. **(tx)** Anderson, W. H. & Anderson 1971: 32; Eggers 1927b: 399; Murayama 1957c: 630.
- subcristosus (Blandford)** 1896b: 224 (*Xyleborus*). Holotype ♀; Singapore; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Borneo, Mentawai, Sumatra), Philippine Islands.
Hosts: *Balanocarpus heimii*, *Gonystylus bancanus*, *Hopea mengarauan*, *Parashorea lucida*, *Shorea acuminata*, *S. hypochra*, *S. lepidopta*, *S. leprosula*, *S. uliginosa*, Dipterocarpaceae bark.
Notes: (3) Schedl 1942d: 49 (described male).
References: **(hb)** Beaver & Browne 1978: 597; Browne 1959b: 295, 1961c: 96; Kalshoven 1959c: 138. **(ds)** Beaver & Browne 1978: 597; Browne 1961c: 96; Choo & Woo 1983; Ohno et al. 1987: 87; Hagedorn 1910d: 111; Kalshoven 1959c: 138; Ohno, Yoneyama, & Nakazawa 1982b: 8; Ohno et al. 1987: 87; Schedl 1966b: 39, 1966g: 30, 1971f: 148. **(tx)** Blandford 1896b: 224; Browne 1959b: 295; Hagedorn 1910a: 157; Schedl 1942d: 49.
- infans Hagedorn** 1910b: 7 (*Xyleborus*). Syntypes ♀; Mentawai; MNB, Berlin. Synonymy: Browne 1959b: 292.
References: **(cn)** Mathur & Singh 1961a: 40. **(hb)** Browne 1959b: 292. **(ds)** Beeson 1961: 305; Hagedorn 1910d: 106; Kalshoven 1959: 138; Kleine 1913b: 161, 1914b: 286; Mathur & Singh 1961a: 40; Nunberg 1960: 610; Schedl 1936d: 3, 1936j: 20, 1959c: 167. **(tx)** Browne 1959b: 292; Eggers 1927b: 405–407, 1930d: 196; Hagedorn 1910a: 154, 1910b: 7; Schedl 1939e: 332, 1942a: 171, 196; 1942d: 49, 1950g: 895.
- subcylindricus (Schedl)** 1942d: 24 (*Pocilips*). Lectotype ♀; Java, Bandjar; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 241.
Distribution: Indonesia (Java).
References: **(tx)** Schedl 1942d: 24, 1979c: 241.
- subdepressus Schedl** 1948i: 115. Holotype ♀; Amboina; Schedl Collection in NHMW, Wien, preoccupied by Eggers 1940.
Distribution: Indonesia (Amboina in Moluccas Islands).
References: **(tx)** Schedl 1938e: 10, 1948i: 115, 1950d: 26, 1979c: 241.

subovalis Eggers 1932d: 291. Holotype ♀; Congostaat (Lokolege); MRCB, Tervuren.
Distribution: Africa (Ivory Coast/ Zaire), Madagascar.

Hosts: *Anonidium mannii*, *Artobotrys* sp., *Cleistopholis glauca*, *Xylopiella vallotii*.

References: (bv) Schedl 1960f: 24. (cn) Ghesquiere 1933a; Souphieff & Scherbinovskaja 1937: 89. (hb) Pollet 1977. (ds) Ghesquiere 1933a: 33–34, 1933b: 783; Kleine 1934a: 157, 616; Mayne & Donis 1962: 303, 332; Pollet 1977; Schedl 1960f: 24, 1961k: 714, 1965e: 352, 1966c: 224, 1967e: 213, 1979b: 415; Souphieff & Scherbinovskaja 1937: 89. (tx) Eggers 1932d: 291–292; Murayama 1957: 613; Schedl 1952g: 5, 1961k: 714, 1979c: 243.

subsulcatus Schedl 1962k: 1077. Holotype ♀; Kamerun; Schedl Collection in NHMW, Wien.
Distribution: Africa (Cameroon).

References: (tx) Schedl 1962k: 1077, 1979c: 244.

subvulgaris (Browne) 1966: 246 (*Pocillips*). Holotype ♀; Bismarck Islands: Manus; UZMC, Copenhagen.

Distribution: Bismarck Islands.

References: (tx) Browne 1966: 246.

surinamensis Schedl 1948i: 116. Lectotype ♀; Suriname (= Dutch Guiana); Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 247.
Distribution: South America (Bolivia/ Brazil/ Suriname).

Hosts: *Astrocarym* probably *murumuru* (Boegroe Makka nuts).

Notes: (1) This taxon may be a minor aberration of *carpophagus* Hornung; if so, it has no status in nomenclature.

References: (ds) Dinther 1960: 111; Nieuwenhuizen 1953: 346; Nunberg 1972b: 191; Schedl 1966f: 85, 1970e: 82, 1972g: 43, 1973a: 367, 1976a: 51. (tx) Schedl 1948i: 116, 1951b: 376, 1964k: 217, 1979c: 247; Wood, S. L. 1977c: 384.

brevipilosus Eggers 1951: 150. Holotype ♀; Brasil (Blumenau); Eggers Collection, in NHMW, Wien, preoccupied by Beeson 1939. Synonymy: Wood 1977c: 384.

References: (ds) Eggers 1951: 150; Schedl 1963f: 56, 1966f: 84, 1979c: 46; Wood, S. L. 1977c: 384.

tahitensis (Beeson) 1935: 117 (*Thammurgides*). Holotype ♀; Tahiti: Papenoo Valley, 150 m; not given, presumably BPBM, Honolulu.

Distribution: Philippine Islands, Tahiti.

References: (ds) Beeson 1935b: 291; Murayama 1957c: 630. (tx) Beeson 1935: 117–118, 1938b: 291; Murayama 1957c: 630.

striatus Eggers 1927c: 82 (*Thammurgides*). Holotype ♀; Philippinen: Luzon, Provinz Laguna, Mount Maquiling; USNM, Washington, preoccupied by Eggers 1920. Synonymy: Beaver 1991: 88.

References: (ds) Wood, S. L. 1960a: 47. (tx)

Anderson, W. H. & Anderson 1971: 32; Beaver 1991: 88; Beeson 1939: 287; Eggers 1927c: 82; Schedl 1961k: 713; Wood, S. L. 1960a: 47.

striatulus Wood 1959: 178. Holotype ♀; Philippinen: Luzon, Provinz Laguna, Mount Maquiling; USNM, Washington, automatic.
Synonymy: Beaver 1991: 88.

References: (tx) Wood, S. L. 1959: 178.

tapatapaoanus (Schedl) 1951k: 149 (*Pocillips*). Lectotype ♀; Upolu, Tapatapao: Lanutoo Trail, 1,600 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 250.

Distribution: Samoa.

Hosts: *Myristica* sp. fruits.

References: (ds) Murayama 1957c: 630. (tx) Murayama 1957c: 630; Schedl 1951k: 135, 149, 1979c: 250.

taprobanus (Blandford) 1896b: 203 (*Dryocoetes*). Holotype ♀; Ceylon (Thwaites); BMNH, London.

Distribution: Asia (Sri Lanka).

References: (ds) Hagedorn 1910d: 67; Kleine 1913b: 136, 1914b: 273; Murayama 1957c: 608; Schedl 1959a: 491. (tx) Blandford 1896b: 203; Hagedorn 1910a: 96; Murayama 1957c: 608; Schedl 1959a: 491.

theae Eggers 1929b: 112. Holotype ♀; Ceylon (Peradeniya); BMNH, London.

Distribution: Asia (Burma/ Sri Lanka).

Hosts: *Camellia sinensis*, *C. theifera* (seed).

References: (cn) Mathur, Singh, & Lal 1958: 19, 95; Souphieff & Scherbinovskaja 1937: 89. (ds) Beeson 1939: 302, 1961: 286; Bhasin, Roonwal, & Singh 1958; Kleine 1934a: 157; Mathur, Singh, & Lal 1958: 19, 95; Schedl 1959a: 485, 1971a: 276, 1972j: 225, 1975a, 1977d: 280; Souphieff & Scherbinovskaja 1937: 89. (tx) Beeson 1939: 302; Eggers 1929b: 112; Schedl 1938e: 10, 1948i: 118–119, 1959a: 485, 487, 1979c: 252.

tunggali (Schedl) 1942a: 178 (*Pocillips*). Lectotype ♀; Malaya, Pahang, Rotan Tunggal F. R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 258.

Distribution: Asia (Malaya/ Vietnam).

Hosts: *Artocarpus scortechinii*, *Garcinia merquearius*, *Pometia pinnata*.

Notes:

References: (ds) Browne 1961c: 93; Murayama 1957c: 230; Schedl 1973c: 377. (tx) Browne 1972b: 21; Murayama 1957c: 230; Schedl 1942a: 178, 1979c: 258.

uniseriatus Eggers 1927b: 398. Holotype ♀; Sumatra; Eggers Collection, in NHMW, Wien.

Distribution: Indonesia (Sarawak in Borneo, Sumatra).

Notes: (3) Schedl 1959r: 42 (*confertus* Schedl treated as a synonym).

References: (ds) Murayama 1957c: 630; Schedl 1964c: 304. (tx) Eggers 1927b: 398–399, 1940a:

129; Murayama 1957e: 630; Schedl 1933e: 105, 1938e: 10, 1942d: 24, 1959r: 42, 1972q: 256, 1979c: 261.

variabilis (Beeson) 1939: 286 (*Thamnurgides*). Holotype ♀; Coorg; Bhagamandala, Karike, 3,500 feet; FRI, Dehra Dun.

Distribution: Asia (Burma/ Karnataka in India/ Malaya/ Sri Lanka/ Vietnam), Fiji, Indonesia (Borneo, Java, Sumatra), Micronesia (Caroline Islands).

Hosts: *Agathis vitiensis*, *Borassus flabellifer*, *Colophyllum vitiense*, *Cullenia excelsa*, *Dillenia retusa*, *Elacocarpus oblongus*, *Ficus glomerata*, *Machilus macrantha*, *Myristica castaneifolia*, *M. cinnamomea*, *Styrax benzoin*, *Swietenia* sp., *Swintonia floribunda*, *Tectona grandis*, *Vateria indica*.

Notes: (3) Breeds in bark and fruit.

References: (cn) Mathur & Singh 1961a: 78, 1961b: 14; Mathur, Singh, & Lal 1958: 15, 104; Yunus & Hua 1980: 229. (hb) Beaver 1987a: 16; Beaver & Browne 1978: 598; Browne 1961c: 99. (ds) Beaver 1987a: 16; Beaver & Browne 1978: 598; Beeson 1961: 301; Bhasin, Roonwal, & Singh 1958; Browne 1949b, 1960a: 304, 1961c: 99, 1980b: 381, 1983b: 77, 1986b: 333, 1986c: 661; Mathur & Singh 1961a: 78, 1961b: 14; Mathur, Singh, & Lal 1958: 15, 104; Murayama 1957c: 630; Ohno et al. 1987: 87; Schedl 1964c: 304, 1971a: 276, 1973c: 378, 1975e: 449; Wood, S. L. 1960a: 47; Yunus & Hua 1980: 229. (tx) Beeson 1939: 286–287, 306; Browne 1949b: 897, 1970: 566; Murayama 1957c: 630; Schedl 1953c: 289, 1959a: 490, 1979c: 264; Wood, S. L. 1960a: 47–48.

vateriae (Beeson) 1939: 293 (*Thamnurgides*). Holotype ♀; Madras: Wynaad division, Chandanathode, 3,800 feet; FRI, Dehra Dun.

Distribution: Asia (Karnataka, Kerala in India).

Hosts: *Cullenia excelsa*, *Vateria indica*.

Notes: (3) Breeds in fruit.

References: (cn) Mathur, Singh, & Lal 1958: 36, 104. (ds) Beeson 1939: 293–294, 307, 1961: 301; Mathur, Singh, & Lal 1958: 36, 104; Murayama 1957c: 630. (tx) Beeson 1939: 293; Murayama 1957c: 630.

vulgaris (Eggers) 1923a: 151 (*Dendrurgus*). Syn-types ♀; Engano, Mentawai, Sumatra, Borneo, Neu Guinea; MCG, Genova, and Eggers Collection (2 syntypes), in NHMW, Wien.

Distribution: Asia (Burma/ Andaman Islands, Assam, Bengal, Nicobar Islands, Uttar Pradesh in India/ Malaya/ Sri Lanka), Bismarck Islands, Fiji, Indonesia (Borneo, Java, Mentawai, Sumatra), New Guinea, North America (introduced: Florida), Philippine Islands, Samoan Islands.

Hosts: *Aesculus punduana*, *Amoora rohituka*, *Artocarpus fraxinifolius*, *Canarium euphyllum*, *Ficus religiosa*, *Myristica dactyloides*, *Phoebe hainesiana*, *Swintonia floribunda*, *Terminalia myriocarpa*.

Notes: (3) Schedl 1959a: 488, 1966: 39 (*Pocilips montanus* Eggers, nomen nudum, *P. notatus* Eggers, nomen nudum, synonymy). Breeds in bark. References: (bv) Gray, B. 1974c. (cn) Mathur & Singh 1961a: 81, 1961b: 34; Roonwal 1954: 33; Wylie & Shanahan 1975. (hb) Beaver 1976b: 537; Beeson 1929: 228; Gray, B. 1974c; Kalshoven 1958b: 177; Wylie & Shanahan 1975. (ds) Atkinson et al. 1991: 159; Beaver 1976b: 537; Beaver & Maddison 1990: 372; Beeson 1929: 228, 1938b: 291, 1961: 301; Bhasin, Roonwal, & Singh 1958; Browne 1961c: 93, 1966: 246, 1974a: 65, 1980c: 484, 1984b: 287; Mathur & Singh 1961a: 81, 1961b: 34; Murayama 1957c: 630–631; Ohno et al. 1988a: 92, 1989: 60; Roonwal 1954: 33; Schedl 1966b: 39, 1969a: 207, 1969c: 51, 1969e: 156, 1971a: 276, 1971c: 364, 1971f: 148, 1972b: 267, 1975i: 346, 1975j: 293. (tx) Beeson 1929: 229, 1938: 291, 1939: 229, 307; Eggers 1923a: 151, 1925: 153, 1927c: 82; Murayama 1957c: 630–631; Nobuchi 1983: 301; Schedl 1942d: 3–4, 1951k: 135, 1954a: 139, 1959a: 488, 1979c: 268; Wood, S. L. 1960a: 47.

brevior Eggers 1927c: 84 (*Pocilips*). Lectotype ♀; Philippinen: Luzon, Provinz Mountain, Balaban; USNM, Washington, designated by Anderson & Anderson 1971: 8. Synonymy: Schedl 1966b: 39.

References: (ds) Schedl 1959a: 485. (tx) Anderson, W. H. & Anderson 1971: 8; Eggers 1927c: 84; Schedl 1939e: 329, 1942d: 4, 1959a: 485, 488, 1966b: 39, 1979c: 46.

Tribe Crypturgini LeConte

Crypturgi

References: LeConte 1876: 374, 387; LeConte & Horn 1883: 521.

Crypturgidae

References: Eichhoff 1878b: 72; Hagedorn 1908: 371.

Crypturginae

References: Hagedorn 1910a: 24, 71, 1910d: 34; Hopkins 1915c: 225; Nusslin 1911: 428; Tredl 1907: 11.

Crypturgini

References: Bedel 1888b: 395, 412; Leng 1920: 337; Lucas 1920: 19; Nusslin 1911: 428; Reitter 1913: 27; Tredl 1907: 11; Wood, S. L. 1978a: 113, 1982b: 67, 1986a: 75–76; Yin, Huang, & Li 1984: 94.

Crypturgina

References: Balachowsky 1949a: 158; Nunberg 1954: 16.

Genus *Dolurgus* Eichhoff

DOLURGUS EICHHOFF 1868c: 147. Type-species: *Hylastes pumilus* Mannerheim, monobasic.

References: (ay) Nobuchi 1969a: 59. (hb) Chapman 1957: 3–4; Wood, S. L. 1986a: 76. (ds) Wood, S. L. 1986a: 76. (tx) Arnett 1960: 1043, 1968: 1043; Bruck 1936a: 40; Chamberlin 1939: 120–121, 1958: 55; Chapuis 1869: 24, 1873: 232; Eichhoff 1868c: 147, 1878b: 83; LeConte 1876: 387; LeConte & Horn 1883: 524; Swaine 1909: 100–101, 1918a: 39; Wood, S. L. 1982b: 743–744, 1986a: 76.

pumilus (Mannerheim) 1843: 297 (*Hylastes*). Holotype, sex?, Sitka Island [Alaska]; MZU, Helsinki.

Figures: Bright 1976d: 202, 210 (adult).

Distribution: North America (Alaska/ British Columbia in Canada/ California, Oregon, Washington in USA).

Hosts: *Abies nobilis*, *Picea engelmannii*, *P. sitchensis*, *Pinus contorta*, *P. monticola*, *P. muricata*, *P. radiata*, *P. tuberculata*.

Notes: (1) Eichhoff 1868c: 147 (to *Dolurgus*).

References: (ay) Chapman 1957. (bv) Chapman 1963a: 3–4, 1963b: 673–676; Ohmart & Voight 1982: 340. (cn) Currie 1905: 73; Doane et al. 1936; Essig 1926: 513, 1958: 513; Hopkins 1904a: 18; Keen 1929a: 57, 1952c: 166; Lindgren 1980a: 62; Ruppel 1967: 36; Schuder 1969: 76; Swaine 1918a: 55. (ec) Furniss, R. L. & Carolin 1977: 378; Ohmart & Voight 1982: 340. (hb) Bright 1976d: 116; Bright & Stark 1973: 70; Chamberlin 1939: 120–121, 1958: 55; Doane et al. 1936; Essig 1926: 513, 1958: 513; Furniss, R. L. & Carolin 1977: 378; Hopkins 1904a: 18; Keen 1929: 57, 1952c: 166; Kinghorn & Chapman 1959: 81–92; Lindgren 1980a: 62; Pierce, W. D. 1907: 294; Swaine 1918a: 55; Wood, S. L. 1982b: 743. (ds)

Bright 1976d: 116; Bright & Stark 1973: 70; Chamberlin 1917: 324, 1925, 1939: 120–121, 1958: 55; Chapman 1963: 676; Chapuis 1869: 24, 1873: 232; Essig 1926: 513, 1958: 517; Evans, D. 1983: 32; Furniss, R. L. & Carolin 1977: 378; Hagedorn 1910d: 37; Hamilton 1894: 35; Henshaw 1885: 149; Hopping 1922; Keen 1929a: 57, 1929a: 14, 1952c: 166; Kleine 1912a: 218, 1913b: 115, 1914b: 403, 1934a: 140; Leng 1920: 338; Melsheimer 1853: 88; Murayama 1957a: 36; Ohmart & Voight 1982: 340; Patterson & Hatch 1945: 149; Ruppel 1967: 36; Schedl 1969a: 203; Schuder 1969: 76; Swaine 1909: 101; Wood, S. L. 1972a: 415, 1982b: 743. (tx) Bright 1976d: 116, 202, 210; Bruck 1936a: 169; Chamberlin 1939: 120–121, 1958: 55; Chapuis 1869: 24, 1873: 232; Eichhoff 1868c: 147, 1878b: 83; Evans, D. 1983: 32; Hagedorn 1910a: 76; Hopkins 1914: 121; Keen 1929a: 14; LeConte 1857: 22, 1865: 152, 1876: 387, 437; Lucas 1920: 247; Mannerheim 1843: 297 (reprint p. 125), 1952: 356; Swaine 1909: 101, 1918a: 55; Wood, S. L. 1969c: 116, 1972a: 415, 1982b: 743. (ms) Essig 1931: 699; Lucas 1920: 247.

Genus *Coleobothrus* Enderlein

COLEOBOTHRUS ENDERLEIN 1929: 144. Type-species: *Coleobothrus jandiacus* Enderlein, original designation.

Keys: Menier 1973: 208.

References: (hb) Wood, S. L. 1986a: 76. (ds) Wood, S. L. 1986a: 76. (tx) Enderlein 1929: 144; Menier 1973: 205–208; Schedl 1959g: 54, 1961k: 644; Wood, S. L. 1986a: 76.

alluaudi (Peyerimhoff) 1923a: 52 (*Aphanarthrum*). Syntypes, sex?, Valle du Sous, Morocco; not located.

Distribution: Africa (Fuerteventura in Canary Islands/ Morocco).

Hosts: *Euphorbia beaumierana*, *E. echinus*, *E. handiensis*.

Notes: (1) Menier 1973: 205 (to *Coleobothrus*).

References: (hb) Peyerimhoff 1926: 386. (ds) Kleine 1934a: 139; Köcher 1953: 133; Peyerimhoff 1923a: 52, 60, 1925: 13, 1926: 386; Schedl 1959g: 60, 1964f, 1972n: 350. (tx) Menier 1973: 205; Peyerimhoff 1923a: 52, 60; Schedl 1934f: 1638, 1959g: 60, 1979c: 16.

jandiacus Enderlein 1929: 144. Syntypes ♂ ♀; Fuerteventura, Jandia-Gebirge, Gran Valle; Stettin Museum, lost, 1 in Madrid Museum. Synonymy: Israelson 1980: 202.

References: (cn) Souphieff & Scherbinovskaja 1937: 28. (ds) Kleine 1934a: 139; Schedl 1959g: 60; Schedl, Lindberg, & Lindberg 1959: 21; Souphieff & Scherbinovskaja 1937: 28. (tx) Enderlein 1929: 144; Israelson 1980: 202; Menier 1973: 205, 207; Schedl 1934f: 1638,

1959g: 60; Schedl, Lindberg, & Lindberg 1959: 21.

germeauxi Menier 1973: 207. Holotype ♂; Massif du Day, Parc national, Territoire français des Afars et des Issas; MNHN, Paris.

Figures: Menier 1973: figs. 2–3.

Distribution: Africa (Eritrea in Ethiopia).

Hosts: *Euphorbia* sp.

References: (tx) Menier 1973: 207.

luridus (Wollaston) 1860b: 163 (*Aphanarthrum*). Lectotype, sex?, Sta Cruz in Tenerife, San Sebastian in Gomera, Canary Islands; BMNH, London, designated by Israelson 1972: 250.

Distribution: Africa (Comera, Gran Canaria, Tenerife in Canary Islands).

Hosts: *Euphorbia canariensis*.

References: (ay) Israelson 1972: 250. (cn) Souphieff & Scherbinovskaja 1937: 27. (ds) Enderlein 1929; Kleine 1913b: 113, 1914a: 21, 1934a: 139; Lacordaire 1866: 376; Peyerimhoff 1923a: 47; Schedl 1959g: 58, 1964f, 1971d: 426; Schedl, Lindberg, & Lindberg 1959: 22; Souphieff & Scherbinovskaja 1937: 27. (tx) Enderlein 1929: 145–146; Ferrari 1868: 251, 254; Israelson 1972: 250; Lacordaire 1866: 376; Menier 1973: 205; Peyerimhoff 1923a: 47; Schedl 1934f: 1638, 1959g: 58, 1979c: 142; Schedl, Lindberg, & Lindberg 1959: 22; Wollaston 1860b: 162–163, 1861b: 32, 1862b: 166, 1864: 262, 1865: 243.

luridus annulicollis Enderlein 1929: 146. Syn-types, sex?, Tenerife, Santa Cruz; not located. References: (tx) Enderlein 1929: 146; Schedl 1934f: 1638, 1959g: 22.

luridus flavicollis Enderlein 1929: 146. Syntypes, sex?, Tenerife, Anagagebirge, bei San Andres, Canary Islands; not located.

References: (tx) Enderlein 1929: 146; Schedl 1934f: 1638, 1959g: 22.

Genus *Aphanarthrum* Wollaston

APHANARTHURUM WOLLASTON 1854: 292. Type-species:

Aphanarthrum euphorbiae Wollaston, monobasic.

Keys: Schedl 1959g: 56.

References: (hb) Schedl 1958d: 184; Wood, S. L. 1986a: 76. (ds) Hagedorn 1910d: 34; Paulian & Villiers 1941: 103; Schedl 1934f: 1638; Wood, S. L. 1986a: 76. (tx) Blandford 1894b: 263, 1897a: 174, 1904: 249; Eichhoff 1878b: 39–40, 84–85; Enderlein 1929: 142–144; Ferrari 1867a: 4, 7–8, 1865: 254; Hagedorn 1908: 371, 1909: 138, 1910a: 71–72, 75; Hopkins 1914: 117, 1915c: 210, 226; Israelson 1972: 249–257; Kirsch 1866: 213; LeConte 1868: 151–152; Menier 1973: 205; Peyerimhoff 1923: 57; Ratzeburg 1868: 173–174; Reitter 1894: 59, 1913a: 61; Schedl 1946: 2, 1959g: 54, 1961k: 644; Uyttenboogaart 1932: 56; Wollaston 1854: 292, 1860: 162–163, 1862: 165, 1864: 257, 1865: 239, 1871: 263; Wood, S. L. 1986a: 76.

aeonii Lindberg 1953: 18. Holotype, sex?, Valle de Masca, Canary Islands; MZU, Helsinki.

Figures: Israelson 1972: fig. 3 (male genitalia).

Distribution: Africa (Comera, Hierro, Palma, Tenerife in Canary Islands).

Notes: (1) Lindberg 1959: 20, Israelson 1972: 251 (a good species).

References: (ay) Israelson 1972. (tx) Lindberg 1953: 18, 1959: 20; Schedl 1959g: 20.

affine Wollaston 1860b: 166. Lectotype ♂; Lanzarote, Fuerteventura et Canaria; BMNH, London. Figures: Israelson 1972: fig. 19 (male genitalia). Distribution: Africa (Fuerteventura, Gomera, Gran Canaria, Lanzarote, Tenerife in Canary Islands/Morocco).

Hosts: *Euphorbia balsamifera*, *E. regis-jubae*, *E. dendroides*.

References: (ay) Israelson 1972. (cn) Souphieff & Scherbinovskaja 1937: 27. (hb) Peyerimhoff 1926: 386. (ds) Gemminger & Harold 1872: 2680; Hagedorn 1910d: 34; Kleine 1913b: 113, 1914a: 20, 1934a: 139; Lacordaire 1866: 376; Peyerimhoff 1923a: 48, 61, 1925: 13, 1926: 386; Schedl 1959g: 72, 1964f; Schedl, Lindberg, & Lindberg 1959: 18; Souphieff & Scherbinovskaja 1937: 27; Uyttenboogaart 1937: 116. (tx) Eichhoff 1878b: 92; Hagedorn 1910a: 72; Lacordaire 1866: 376; Peyerimhoff 1923a: 48, 61; Schedl 1934f: 1638, 1959g: 72; Schedl, Lindberg, & Lindberg 1959: 18, 58; Wollaston 1860b: 166, 1861b: 36, 1862b: 170, 1864: 259, 1865: 242.

armatum Wollaston 1861b: 33. Lectotype ♀; Vicinity of Haria, Lanzarote, Canary Islands; BMNH, London, designated by Israelson 1972: 256.

Figures: Israelson 1972: fig. 22 (male genitalia, species identification tentative).

Distribution: Africa (Lanzarote in Canary Islands).

Hosts: *Euphorbia* sp.

References: (cn) Souphieff & Scherbinovskaja 1937: 100. (ds) Gemminger & Harold 1872: 2681; Hagedorn 1910d: 34; Kleine 1913b: 113, 1914a: 21, 1934a: 139; Peyerimhoff 1923a: 48, 61; Schedl 1959g: 66; Schedl, Lindberg, & Lindberg 1959: 18; Souphieff & Scherbinovskaja 1937: 100. (tx) Eichhoff 1878b: 97; Hagedorn 1910a: 73; Israelson 1972: 256; Peyerimhoff 1923a: 48, 61; Schedl 1934f: 1638, 1959g: 57, 66; Schedl, Lindberg, & Lindberg 1959: 18; Wollaston 1861b: 33, 1862b: 167, 1865: 240.

bicinctum Wollaston 1860b: 165. Lectotype ♂; Lanzarote, Canary Islands; BMNH, London, designated by Israelson 1972: 255.

Figures: Israelson 1972: figs. 9–11 (male genitalia).

Distribution: Africa (Gran Canaria, Lanzarote, Tenerife in Canary Islands).

Hosts: *Euphorbia balsamifera*, *E. canariensis*, *E. obtusifoliae*, *E. regis-jubae*.

Notes: (3) Israelson 1972: 255 (established subspecies and designated lectotypes for the subspecies;

he did not treat the host or geographical distributions that make it possible to recognize the existence of subspecies).

References: (ay) Israelson 1972. (cn) Souplieff & Scherbinskaja 1937: 27–28. (hb) Peyerimhoff 1926: 386. (ds) Gemminger & Harold 1872: 2681; Hagedorn 1910d: 34; Kleine 1913b: 113, 1914a: 20, 1934a: 139; Kocher 1953: 133; Lacordaire 1866: 376; Peyerimhoff 1923a: 48, 61, 1925: 13, 1926: 386; Schedl 1959g: 70, 1964f, 1971d: 425; Schedl, Lindberg, & Lindberg 1959: 19; Souplieff & Scherbinskaja 1937: 27–28; Uyttenboogaart 1937: 116. (tx) Eichhoff 1878b: 100; Ferrari 1868: 254; Hagedorn 1910a: 73; Lacordaire 1866: 376; Peyerimhoff 1923a: 48, 61; Schedl 1934f: 1638, 1959g: 70; Schedl, Lindberg, & Lindberg 1959: 19; Wollaston 1860b: 165, 1861b: 35, 1862b: 149, 1864: 260, 1865: 241, 243.

bicinctum vestitum Wollaston 1865: 43. Lectotype ♂; Teneriffe, Canary Islands; BMNH, London, designated by Israelson 1972: 255.

Notes: (1) Israelson 1972: 255 (subspecies established).

References: (ay) Israelson 1972: 255. (tx) Israelson 1972: 255; Schedl 1934f: 1638, 1959g: 70; Wollaston 1865: 43.

bicinctum obsitum Wollaston 1865: 43. Lectotype ♂; Grand Canary, Canary Islands; BMNH, London, designated by Israelson 1972: 255.

Notes: (1) Israelson 1972: 255 (subspecies established).

References: (ay) Israelson 1972: 255. (ds) Kleine 1914a: 21. (tx) Israelson 1972: 255; Schedl 1934f: 1638, 1959g: 70; Wollaston 1865: 43.

bicolor Wollaston 1860b: 165. Lectotype, sex?; Teneriffe, Canary Islands; BMNH, London, designated by Israelson 1972: 250.

Figures: Israelson 1972: fig. 1 (male genitalia).

Distribution: Africa (Comera, Hierro, Lanzarote, Palma, Tenerife in Canary Islands/ Madeira Island).

Hosts: *Euphorbia regis-jubae*, *E. piscatoria*.

References: (ay) Israelson 1972. (cn) Souplieff & Scherbinskaja 1937: 27. (ds) Fauvel 1897; Gemminger & Harold 1872: 2681; Hagedorn 1910a: 34; Jansson 1940: 63; Kleine 1913b: 113, 1914a: 20, 22, 1934a: 139; Lacordaire 1866: 376; Lundblad 1958: 489; Peyerimhoff 1923a: 48, 60; Schedl 1959g: 51, 1963e: 155, 1964f; Schedl, Lindberg, & Lindberg 1959: 19; Schmitz 1898: 157; Souplieff & Scherbinskaja 1937: 27; Uyttenboogaart 1937: 116. (tx) Eichhoff 1878b: 89; Ferrari 1868: 254; Hagedorn 1910a: 73; Lacordaire 1866: 376; Peyerimhoff 1923a: 48, 60; Schedl 1934f: 1638, 1959g: 61, 1979c: 38; Schedl, Lindberg, & Lindberg 1959: 19; Wollaston 1860a: 362, 1860b: 165, 1861b: 35, 1862b: 169, 1864: 259, 1865: 243.

canariense Wollaston 1860b: 164. Lectotype ♂; Hierro, Canary Islands; BMNH, London, designated by Israelson 1972: 256.

Figures: Israelson 1972: fig. 18 (male genitalia).

Distribution: Africa (Comera, Hierro, Gran Canaria, Palma, Tenerife in Canary Islands/ Madeira Island).

Hosts: *Euphorbia canariensis*.

References: (ay) Israelson 1972. (cn) Souplieff & Scherbinskaja 1937: 28. (ds) Gemminger & Harold 1872: 2681; Hagedorn 1910a: 34; Kleine 1913b: 113, 1914a: 20, 22; Lacordaire 1866: 376; Peyerimhoff 1923a: 48, 61; Schedl 1959g: 68, 1971d: 426; Schedl, Lindberg, & Lindberg 1959: 20; Souplieff & Scherbinskaja 1937: 28; Uyttenboogaart 1937: 116. (tx) Eichhoff 1878b: 99; Ferrari 1868: 251–254; Hagedorn 1910a: 73; Lacordaire 1866: 376; Peyerimhoff 1923a: 48, 61; Schedl 1934f: 1638, 1959g: 57, 68; Schedl, Lindberg, & Lindberg 1959: 20; Wollaston 1860b: 164, 1861b: 34, 1862b: 165, 1864: 261, 1865: 240.

canariense longipes Israelson 1972: 256. Holotype ♂; El Time, La Palma, Canary Islands; Israelson Collection.

Notes: Israelson 1972: 256 (subspecies established, but distributions are not discussed).

References: (ay) Israelson 1972: 256. (ds) Schedl 1964f. (tx) Israelson 1972: 256.

canescens Wollaston 1865: 241. Lectotype ♂; Comera, Canary Islands; BMNH, London, designated by Israelson 1972: 255.

Figures: Israelson 1972: figs. 14–16, 23 (male genitalia).

Distribution: Africa (Comera, Gran Canaria, Tenerife in Canary Islands).

Hosts: *Euphorbia balsamifera*, *E. regis-jubae*.

Notes: Israelson 1972: 255–256 (subspecies established without a discussion of either host or geographical distributions).

References: (ay) Israelson 1972: 255. (ds) Gemminger & Harold 1872: 2681; Hagedorn 1910a: 34; Kleine 1913b: 113, 1914a: 20, 1934a: 139; Peyerimhoff 1923a: 48, 61; Schedl 1959g: 63, 1971d: 426; Schedl, Lindberg, & Lindberg 1959: 20; Uyttenboogaart 1937: 117. (tx) Eichhoff 1878b: 95; Hagedorn 1910a: 73; Peyerimhoff 1923a: 48, 61; Schedl 1934f: 1638, 1959g: 63; Schedl, Lindberg, & Lindberg 1959: 20; Wollaston 1865: 240–241.

canescens simplex Wollaston 1865: 42. Lectotype ♂; Grand Canary, Canary Islands; BMNH, London, designated by Israelson 1972: 256.

Notes: (1) Israelson 1972: 256 (subspecies established).

Distribution: Africa (Gran Canaria in Canary Islands).

References: (ay) Israelson 1972: 256. (ds) Kleine 1914a: 20. (tx) Israelson 1972: 256; Schedl 1934f: 1638, 1959g: 63; Wollaston 1965: 42.

canescens polyspiniger Israelson 1972: 256. Holo-

type ♂; Los Cristianos, Tenerife, Canary Islands; Israelson Collection.

Notes: (1) Israelson 1972: 256 (subspecies established).

Distribution: Africa (Tenerife in Canary Islands).

References: (ay) Israelson 1972: 256. (tx) Israelson 1972: 256.

duongi Villiers 1946: 140. Holotype, sex?; Koulouba (Bamako), French West Africa; Institut français d'Afrique noire de Dakar.

Distribution: Africa (Mali).

Hosts: *Euphorbia sudanica*.

References: (ds) Schedl 1959g: 77, 1961k: 645. (tx) Schedl 1959g: 77, 1961k: 645; Villiers 1947: 140.

euphorbiae Wollaston 1854: 293. Lectotype ♂; Lagoa basin, Madeira; BMNH, London, designated by Israelson 1972: 256.

Figures: Israelson 1972: fig. 20 (lectotype male genitalia)

Distribution: Africa (Madeira Island).

Hosts: *Euphorbia mellifera*.

References: (ay) Israelson 1972: 256. (cn) Souphieff & Scherbinovskaja 1937: 28. (ds) Fauvel 1897; Gemminger & Harold 1872: 2681; Hagedorn 1910a: 34; Jansson 1940: 63; Kleine 1913b: 113, 1914a: 22, 1934a: 139; Lacordaire 1866: 375; Lundblad 1958: 489; Peyerimhoff 1923a: 48, 61; Schedl 1959g: 69, 1963e: 155; Schmitz 1898: 157; Souphieff & Scherbinovskaja 1937: 28; Wollaston 1854: 293, 1857: 97. (tx) Eichhoff 1878b: 87; Ferrari 1868: 251; Hagedorn 1910a: 73; Hopkins 1914: 117; Israelson 1972: 256; Lacordaire 1866: 375; Lucas 1920: 108; Peyerimhoff 1923a: 48, 61; Schedl 1934f: 1638, 1959g: 69, 1979c: 92; Wollaston 1854: 293, 1857: 97, 1860a: 362, 1861b: 31, 1862b: 165, 1864: 260, 1865: 242.

glabrum Wollaston 1860: 167. Lectotype, sex?; Hierro, Canary Islands; BMNH, London, designated by Israelson 1972: 251.

Figures: Israelson 1972: figs. 5–6 (male genitalia).

Distribution: Africa (Comera, Hierro, Palma, Tenerife in Canary Islands).

Hosts: *Euphorbia* sp.

Notes: (1) Israelson 1972: 251 (subspecies established).

References: (ay) Israelson 1972: 251. (cn) Souphieff & Scherbinovskaja 1937: 27. (hb) Uyttenboogaart 1937: 17. (ds) Gemminger & Harold 1872: 2681; Hagedorn 1910a: 34; Kleine 1913b: 113, 1914a: 20, 1934a: 139; Lacordaire 1866: 376; Peyerimhoff 1923a: 48, 60; Schedl 1959g: 62; Schedl, Lindberg, & Lindberg 1959: 21; Souphieff & Scherbinovskaja 1937: 27. (tx) Eichhoff 1878b: 89; Hagedorn 1910a: 73; Lacordaire 1866: 376; Peyerimhoff 1923a: 48, 60; Schedl 1934f: 1638, 1959g: 56, 62; Schedl, Lindberg, & Lindberg 1959: 21; Wollaston 1860b: 167, 1861b: 37, 1862b: 171, 1864: 258, 1865: 242.

glabrum nudum Israelson 1972: 251. Holotype ♂; Santa Cruz, La Palma, Canary Islands; Israelson Collection.

Notes: (1) Israelson 1972: 251 (subspecies established).

Distribution: Africa (Palma in Canary Islands).

References: (ay) Israelson 1972: 251.

hesperidum Wollaston 1867: 117. Lectotype ♂; Cape Verde Islands, S. Vicent; BMNH, London, designated by Israelson 1972: 250.

Distribution: Africa (Cape Verde Islands).

Hosts: *Euphorbia emortuus*, *E. tuckeyana*.

References: (ay) Israelson 1972: 250. (cn) Souphieff & Scherbinovskaja 1937: 28. (ds) Gemminger & Harold 1872: 2681; Hagedorn 1910d: 34; Kleine 1913b: 113, 1914a: 23, 1934a: 139; Peyerimhoff 1923a: 61; Schedl 1959g: 73; Souphieff & Scherbinovskaja 1937: 28. (tx) Eichhoff 1878b: 94; Hagedorn 1910a: 73; Israelson 1972: 250; Peyerimhoff 1923a: 61; Schedl 1959g: 73, 1979c: 116; Wollaston 1867: 117.

indicum Wood 1988b: 190. Holotype ♂; Chikalda, Melghat, C.P., India; FRI, Dehra Dun.

Distribution: Asia (Madhya Pradesh, Maharashtra in India).

Hosts: *Euphorbia nerifolia*, *Opuntia* sp.

References: (tx) Wood, S. L. 1988b: 190.

jubae Wollaston 1860b: 164. Lectotype, sex?; Haria, Lanzarote, Canary Islands; BMNH, London, designated by Israelson 1972: 255.

Figures: Israelson 1972: figs. 12–13 (male genitalia).

Distribution: Africa (Comera, Gran Canaria, Hierro, Lanzarote, Tenerife in Canary Islands).

Hosts: *Euphorbia regis-jubae*.

Notes: (1) Israelson 1972: 255 (subspecies established, but did not discuss host or geographical distributions).

References: (ay) Israelson 1972: 255. (cn) Souphieff & Scherbinovskaja 1937: 28. (ds) Gemminger & Harold 1872: 2681; Hagedorn 1910d: 34; Kleine 1913b: 113, 1914a: 20, 1934a: 139; Lacordaire 1866: 375; Peyerimhoff 1923a: 47, 61; Schedl 1959g: 64, 1964f; Schedl, Lindberg, & Lindberg 1959: 21; Souphieff & Scherbinovskaja 1937: 28. (tx) Eichhoff 1868d: 421, 1878b: 85; Ferrari 1868: 251, 254; Hagedorn 1910a: 73; Lacordaire 1866: 375; Peyerimhoff 1923a: 47, 61; Schedl 1934f: 1638, 1959g: 64, 1979c: 130; Schedl, Lindberg, & Lindberg 1959: 21; Wollaston 1860b: 164, 1861b: 33, 1862b: 167, 1864: 257, 1865: 239.

jubae tuberculatum Wollaston 1865: 40. Lectotype, sex?; Hierro, Canary Islands; BMNH, London, designated by Israelson 1972: 255.

Notes: (1) Israelson 1972: 255 (subspecies established).

Distribution: Africa (Hierro in Canary Islands).

References: (ay) Israelson 1972: 255. (cn) Souphieff & Scherbinovskaja 1937: 27. (ds) Hagedorn 1910d: 34; Kleine 1913b: 113, 1914a: 20;

Peyerimhoff 1923a: 47, 61; Schedl 1959g: 65; Schedl, Lindberg, & Lindberg 1959: 23; Souphieff & Scherbinovskaja 1937: 27. **(tx)** Eichhoff 1878b: 88; Hagedorn 1910a: 73; Israelson 1972: 255; Peyerimhoff 1923a: 47, 61; Schedl 1934f: 1638, 1959g: 65; Schedl, Lindberg, & Lindberg 1959: 23; Wollaston 1865: 40, 239–240.

mairei Peyerimhoff 1923a: 53. Syntypes, sex?; Valle du Sous, Morocco; not located.

Distribution: Africa (Fuerteventura in Canary Islands/ Morocco/ Sudan).

Hosts: *Euphorbia beaumierana*, *E. echinus*, *E. handiensis*.

Notes: (3) Schedl 1959: 31 (treated this species in *Cisurgus*).

References: **(hb)** Peyerimhoff 1926: 387. **(ds)** Kleine 1934a: 139; Peyerimhoff 1923a: 53, 60, 1925: 12, 1926: 387; Schedl 1959e: 31, 1959g: 75, 1964f, 1968b: 144, 1972n: 350. **(tx)** Peyerimhoff 1923a: 53, 60, 1934f: 1638, 1959e: 31, 1959g: 75; Pfeffer 1983: 295.

goniomma Enderlein 1929: 142. Syntypes, sex?; Fuerteventura, Jandia-Gebirge, Gran Valle; not located. Synonymy: Israelson 1980: 202.

References: **(cn)** Souphieff & Scherbinovskaja 1937: 28. **(ds)** Kleine 1934a: 139; Schedl 1959g: 74–75; Schedl, Lindberg, & Lindberg 1959: 21; Souphieff & Scherbinovskaja 1937: 28. **(tx)** Enderlein 1929: 142–143; Pfeffer 1983: 295; Schedl 1934f: 1638, 1959g: 74–75, 1962p: 204; Schedl, Lindberg, & Lindberg 1959: 21.

monodi Paulian & Villiers 1941: 102. Holotype, sex?; Dakar, Senegal; MNHN, Paris.

Distribution: Africa (Senegal).

Hosts: *Euphorbia balsamifera*.

References: **(ds)** Schedl 1959g: 76, 1961k: 646. **(tx)** Paulian & Villiers 1941: 102; Schedl 1959g: 76, 1960b: 163, 1961k: 646, 1979c: 158; Villiers 1946: 140.

neglectum Schedl 1964a: 99. Syntypes, sex?; Boca del Rio, Palma; MZU, Helsinki, and Schedl Collection in NHMW, Wien.

Distribution: Africa (Palma in Canary Islands).

References: **(tx)** Schedl 1964a: 99, 1979c: 164.

orientalis Schedl 1971e: 12. Holotype, sex?; Sudan, Erkowit, Rotmeer Gebiet, 1400 m; Bayerischen Staates Museum, Munchen.

Distribution: Africa (Sudan).

References: **(tx)** Schedl 1971e: 12, 1979c: 180.

piscatorium Wollaston 1860b: 166. Lectotype ♂; Teneriffe, Palma, and Hierro, Canary Islands; BMNH, London, designated by Israelson 1972: 250. Figures: Israelson 1972: fig. 5 (male genitalia).

Distribution: Africa (Gomera, Gran Canaria, Hierro, Tenerife in Canary Islands/ Madeira Island).

Hosts: *Euphorbia piscatoria*, *E. sp.*

References: **(ay)** Israelson 1972: 250. **(cn)** Souphieff & Scherbinovskaja 1937: 27. **(ds)** Fauvel

1897; Gemminger & Harold 1872: 2681; Hagedorn 1910a: 34; Jansson 1940: 63; Kleine 1913b: 113, 1914a: 20, 1934a: 139; Lacordaire 1866: 376; Lundblad 1958: 489; Peyerimhoff 1923a: 48, 61; Schedl 1959g: 73, 1963e: 155, 1964f; Schedl, Lindberg, & Lindberg 1959: 22; Schmitz 1898: 157; Souphieff & Scherbinovskaja 1937: 27; Uyttenboogaart 1937: 117. **(tx)** Eichhoff 1878b: 98; Hagedorn 1910a: 73; Lacordaire 1866: 376; Peyerimhoff 1923a: 48, 61; Schedl 1934f: 1638, 1959g: 73, 1964a: 99, 1979c: 195; Schedl, Lindberg, & Lindberg 1959: 22; Wollaston 1860a: 361, 1860b: 166, 1861b: 37, 1862b: 171, 1864: 260, 1865: 242.

pygmaeum Wollaston 1865: 42. Lectotype ♂; Gomera, Canary Islands; BMNH, London, designated by Israelson 1972: 256.

Figures: Israelson 1972: fig. 21 (male genitalia).

Distribution: Africa (Gomera, Palma, Tenerife in Canary Islands).

Hosts: *Euphorbia canariensis*.

References: **(ay)** Israelson 1972: 256. **(cn)** Souphieff & Scherbinovskaja 1937: 28. **(ds)** Gemminger & Harold 1872: 2681; Hagedorn 1910d: 34; Kleine 1913b: 113, 1914a: 20, 1934a: 139; Peyerimhoff 1923a: 48, 61; Schedl 1959g: 67, 1971d: 426; Schedl, Lindberg, & Lindberg 1959: 23; Souphieff & Scherbinovskaja 1937: 28. **(tx)** Eichhoff 1878b: 96; Hagedorn 1910a: 73; Israelson 1972: 254; Peyerimhoff 1923a: 48, 61; Schedl 1934f: 1638, 1959g: 67; Schedl, Lindberg, & Lindberg 1959: 23; Wollaston 1865: 42, 240, 242.

pygmaeum laticollis Wollaston 1865: 42. Syntypes, sex?; Palma, Canary Islands; BMNH, London. Synonymy: Israelson 1972: 256.

References: **(tx)** Schedl 1934f: 1638; Wollaston 1865: 42.

reticulatum Wood 1988b: 191. Holotype ♂; Humsur, Mysore, India; FRI, Dehra Dun.

Distribution: Asia (Karnataka, Uttar Pradesh in India).

Hosts: *Euphorbia royaleana*, *E. sp.*

References: **(tx)** Wood, S. L. 1988b: 191

royaleanum Wood 1988b: 191. Holotype ♂; Chikalda, Malghat, C.P., India; FRI, Dehra Dun. Distribution: Asia (Karnataka, Madhya Pradesh, Uttar Pradesh in India).

Hosts: *Euphorbia royaleana*, *E. sp.*

References: **(tx)** Beeson 1941; Schedl 1959g: 56; Wood, S. L. 1988b: 191.

saturatum Peyerimhoff 1925: 12. Syntypes, sex?; Oued el-Akhdar, pres Demnat; not located.

Distribution: Africa (Morocco).

Hosts: *Euphorbia resinifera*.

References: **(ds)** Peyerimhoff 1925: 12; Schedl 1959e: 32, 1959g: 75. **(tx)** Peyerimhoff 1925: 12; Schedl 1934f: 1638, 1959e: 32, 1959g: 75, 1960b: 163, 1962p: 204.

subglabrum Israelson 1972: 251. Holotype ♂; Canary Islands, La Palma, Bco. de la Cueva Grande; Israelson Collection.

Figures: Israelson 1972:fig. 8 (male genitalia).

Distribution: Africa (Palma in Canary Islands).

Hosts: *Euphorbia* sp.

References: (ay) Israelson 1972: 251. (tx) Israelson 1972: 251, 254.

wollastoni Israelson 1972: 251. Holotype ♂; Canary Islands, Gomera, San Sebastian; Israelson Collection.

Figures: Israelson 1972:fig. 4 (holotype male genitalia).

Distribution: Africa (Gomera in Canary Islands).

Hosts: *Euphorbia* sp.

References: (ay) Israelson 1972: 251. (tx) Israelson 1972: 251–252.

Genus *Deropria* Enderlein

DEROPRIA ENDERLEIN 1929: 143. Type-species: *Aphanarthrum elongatum* Eggers, original designation.

References: (ds) Wood, S. L. 1986a: 76. (tx) Enderlein 1929: 143; Schedl 1959g: 54; Wood, S. L. 1986a: 76.

elongatum (Eggers) 1927: 39 (*Aphanarthrum*). Holotype, sex?; Gran Canaria, Canary Islands; Uyttenboogaart Collection.

Distribution: Africa (Gran Canaria in Canary Islands).

References: (cn) Enderlein 1929: 143. (ds) Schedl 1959g: 76; Schedl, Lindberg, & Lindberg 1959: 21; Uyttenboogaart 1937: 117. (tx) Eggers 1927: 39–40; Enderlein 1929: 143; Schedl 1934f: 1638, 1959g: 57, 76; Schedl, Lindberg, & Lindberg 1959: 21; Wood, S. L. 1986a: 76.

Genus *Crypturgus* Erichson

CRYPTURGUS ERICHSON 1836: 60. Type-species: *Bostriehus pusillus* Gyllenhal, subsequent designation by Thomson 1859: 147.

Keys: Bright 1976d: 114, Swaine 1918a: 54, Wood 1982b: 740 for North America, Reitter 1913a: 61, Schedl 1946a: 4 for Europe.

References: (ay) Nobuchii 1969a: 59. (cn) Aitken 1945: 273–364; Judeich & Nitsche 1895: 448–451. (cc) Balazy & Michalski 1960: 133–144. (hb) Wood, S. L. 1986a: 75–76. (ds) Hagedorn 1910d: 35–37; Scheerpeltz & Winkler 1930: 256; Wood, S. L. 1986a: 76. (tx) Apfelbeck 1916: 429–439; Balachowsky 1949a: 155; Barbey 1901: 68; Beal & Massey 1945: 72; Bedel 1888b: 389, 395; Bright 1976d: 114; Bruck 1936a: 40, 108; Chamberlin 1939: 117–120, 1958: 54; Dodge 1938: 14, 16, 23; Eichhoff 1864b: 33, 44, 46, 1878b: 72, 1881a: 64, 165; Erichson 1836: 60; Hagedorn 1910a: 73–74; Karaman 1972: 97; Kostin 1973: 251; Krivolutskaya 1958: 132; LeConte 1876: 387; LeConte & Horn 1883: 523–524; Niisima 1909: 138; Num-

berg 1955: 75–80; Pfeffer 1942: 207–222, 1989a: 52; Reitter 1913: 61–64; Saalas 1914: 81–82; Schedl 1946a: 1–15; Schimitschek 1937: 50–52; Spessivtsev 1922: 459, 1931: 87; Swaine 1918a: 39, 54; Trappen 1935: 142; Wood, S. L. 1986a: 76; Zimmermann 1868: 142–143.

alutaceus Schwarz 1894: 17. Lectotype ♂; Tampa, Florida [USA]; USNM, Washington, designated by Wood 1982b: 742.

Figures: Coyer et al. 1980: 21 (adult), MacGown & Nebeker 1977: 63–66 (adult).

Distribution: Antilles Islands (Cuba), North America (Florida, Indiana, Louisiana, Maryland, Mississippi, New Jersey, North Carolina, South Carolina, Virginia, West Virginia in USA).

Hosts: *Picea mariana*, *Pinus echinata*, *P. plustrus*, *P. taeda*.

References: (ay) MacGown & Nebeker 1977. (bv) Atkinson, Foltz, & Connor 1988; Dixon & Payne 1979b; Turnbow & Franklin 1980. (cn) Blackman 1950; Doane et al. 1936; Hopkins 1899c: 448; Smith, J. B. 1901b: 92. (cc) Dixon & Payne 1979c; Felt 1906: 753. (hb) Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 239; Beal & Massey 1945: 72; Blackman 1950; Chamberlin 1939: 120; Deyrup & Atkinson 1987a: 65, 1987b: 67; Doane et al. 1936; Felt 1906: 753; Hopkins 1899c: 448; Pierce, W. D. 1907: 294; Schwarz 1893: 288, 1894a: 17. (ds) Atkinson et al. 1991: 160; Beal & Massey 1945: 72; Blackman 1950; Blatchley & Leng 1916: 651; Bright 1985c: 173; Chamberlin 1939: 120; Deyrup & Atkinson 1987a: 65; Drooz 1985: 362; Hagedorn 1910d: 35; Henshaw 1895: 44; Howden & Vogt 1951; Kirk 1970; Kleine 1913b: 114, 1914b: 383, 1934a: 139; Leng 1920: 337; Smith, J. B. 1910: 404; Swaine 1909: 94; Turnbow & Franklin 1980; Ulke 1902: 56; Wood, S. L. 1982b: 742. (tx) Beal & Massey 1945: 72; Blatchley & Leng 1916: 651; Bright 1985c: 173; Chamberlin 1939: 120; Coyer et al. 1980: 21; Hagedorn 1910a: 74; MacGown & Nebeker 1977: 63–66; Schwarz 1893: 288, 1894: 17; Swaine 1909: 94; Wood, S. L. 1982b: 742.

beesoni Eggers 1936d: 627. Lectotype ♂; Kashmir; USNM, Washington, designated by Anderson & Anderson 1971: 6.

Distribution: Asia (Kashmir in India).

Hosts: *Abies webbiana*, *Cedrus deodara*.

References: (ds) Beeson 1961: 286; Bhasin, Roonwal, & Singh 1958. (tx) Anderson, W. H. & Anderson 1971: 6; Eggers 1936d: 627; Schedl 1979c: 36.

borealis Swaine 1917: 7. Lectotype ♀; Winnipeg, Manitoba [Canada]; CNCI, Ottawa, designated by Bright 1967b: 673.

Figures: Bright 1976d: 197, 202, 210, Kusch 1967: 10.

Distribution: North America (Alaska/ Alberta, British Columbia, New Brunswick, Northwest

Territories, Nova Scotia, Ontario, Quebec, Saskatchewan in Canada/ Mexico in Mexico/ Arizona, Colorado, Idaho, Indiana, Maine, Michigan, Missouri, Montana, New Mexico, New York, Oregon, Pennsylvania, South Dakota, Utah in USA).

Hosts: *Abies balsamea*, *A. concolor*, *A. grandis*, *A. lasiocarpa*, *Picea engelmannii*, *P. glauca*, *P. rubens*, *P. sitchensis*, *Pinus contorta*, *P. echinata*, *P. ponderosa*.

References: (ay) Thomas, J. B. 1967. (cn) Beckwith 1972; Chamberlin 1924; Doane et al. 1936; Keen 1952c: 166; Lindquist, O. H. & Syme 1951: 34; Ruppel 1967: 29; Schuder 1969: 75; Syme & Nystrom 1958: 35. (cc) Ashraf & Berryman 1969: 14; Bedard 1933a; DeLeon 1934a; Furniss, R. L. & Carolin 1977: 378; Tomalak, Welch, & Garroway 1989b; Werner & Holsten 1984. (hb) Baker, W. L. 1972: 239; Bright 1976d: 115; Bright & Stark 1973: 70; Chamberlin 1939: 119, 1958: 54; Doane et al. 1936; Furniss, R. L. & Carolin 1977: 378; Keen 1952c: 166; Swaine 1918a: 55. (ds) Bain 1974: 16; Beaulne 1956; Beckwith 1972a; Bright 1976d: 70; Bright & Stark 1973: 70; Chamberlin 1917: 323, 1925, 1939: 119, 1958: 54; Deyrup & Atkinson 1987b: 67; Dodge 1938; Drooz 1985: 362; Furniss, R. L. & Carolin 1977: 378; Gast et al. 1989: 385; Hopping 1922; Keen 1929a: 14, 1952c: 166; Kleine 1934a: 140; Kusch 1967; Leng 1920: 337; Leonard 1928: 515; Lindquist, O. H. & Syme 1951: 34; Patterson & Hatch 1945: 145; Ruppel 1967: 29; Schedl 1963c: 157, 1964f, 1978e: 37; Schuder 1969: 75; Still, Tidsbury, & Melvin 1974; Thatcher, T. O. 1935: 261; Syme & Nystrom 1958: 35; Werner & Holsten 1984; Wood, S. L. 1948: 14, 1951a: 127, 1957c: 396, 1972a: 415, 1982b: 742. (tx) Beckwith 1972a, 1972b; Bright 1967b: 673, 1976d: 115, 197, 202, 210; Bruck 1936a: 108; Chamberlin 1939: 119, 1958: 54; Dodge 1938: 23; Hoebeke 1978; Keen 1929a: 14; Kusch 1967: 10; Lindquist, O. H. & Syme 1951: 34; Pardy 1983; de Ruelle 1970: 100; Schedl 1979c: 43; Swaine 1917: 7, 1918a: 54–55; Syme & Nystrom 1958: 35; Thomas, J. B. 1967; Titus, Meikle, & Harrison 1985: 52; Wood, S. L. 1951a: 12, 1957c: 396, 1972a: 415, 1982b: 742.

corrugatus Swaine 1917: 8. Lectotype ♀; North Mountain, Pennsylvania [USA]; CNCI, Ottawa, designated by Bright 1967b: 673. Synonymy: Wood 1957c: 396.

References: (cn) Blackman 1950; Swaine 1918a: 54. (hb) Blackman 1950; Chamberlin 1939: 119; Swaine 1918a: 54. (ds) Anonymous 1926c: 515; Blackman 1950; Chamberlin 1939: 119; Knull 1934: 211; Leng 1920: 338. (tx) Bright 1967b: 673; Chamberlin 1939: 119; Hoebeke 1978; de Ruelle 1970: 100; Swaine 1917: 8, 1918a: 54–55; Wood, S. L. 1957c: 396.

cinereus (Herbst) 1793: 118 (*Bostrichius*). Syntypes, sex?; Europe; not located.

Figures: Grune 1979: 88, Joly 1976: fig. 140, Pfeffer 1989a: pl. 6, Tsai & Li 1959: 87.

Distribution: Asia (Turkey/ Sakhalin Island, Siberia in E USSR/ Vietnam), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxembourg/ Norway/ Poland/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).

Hosts: *Abies* spp., *Picea* spp., *Pinus* spp.

Notes: (3) Schedl 1979c: 125 (*japonicus* Eggers, nomen nudum, synonymy).

References: (ay) Escherich 1923b: 464, 481, 556; Feytaud 1950a; Francke-Grosmann 1959; Imhoff 1856: 228; Nunberg 1955: 75; Nusslin 1911a: 89, 277, 338, 377. (bv) Nuorteva 1956c: 23, 93; Schmaider 1955: 233. (cn) Barbey 1925: 246; Borodajewsky 1915: 1222–1247; Chararas 1961b: 70; Chorbadzhiyev 1929; Eckstein 1926: 578; Escherich 1923b: 464, 481, 556; Esterberg 1959; Feytaud 1946, 1950a; Fleischer 1877a; Gabler 1955; Gradojevic 1933: 789–790; Grandi 1951; Hanson, H. S. 1937; Henschel 1895a: 162; Herlein 1878; Joly 1976; Judeich & Nitsche 1895: 527; Kharltonov 1924: 199–204; Koch 1913: 126; Kontkanen 1932: 61; Kurenzov 1935c: 188; Marcu 1926c: 63; Nestertschnk 1930: 176; Nosek 1952b: 100; Nusslin 1913: 259; Pfeffer 1933: 43, 1949b: 150; Pierce, W. D. 1917: 74; Prozorov 1929; Reich 1960; Rumbler 1922: 301, 1927: 314; Saalas 1949: 342, 371; Sargos 1947: 8; Schimitschek 1937c: 52, 1955c: 82; Schneider-Orelli & Kuhn 1948: 518; Schuster 1918: 102; Schwerdtfeger 1944a: 177, 1957a: 184; Slander 1958: 150–158; Wachtl 1901: 381, 1926: 578; Wichmann 1927b: 353; Yakubuk 1928: 102–103, 1959: 40. (cc) Apfelbeck 1816b; Balazy & Michalski 1960, 1962b; Barbey 1927; Fleischer 1877a, 1877b; Francke-Grosmann 1931, 1959; Galoux 1947b, 1947c; Grosmann 1931a; Hirschmann & Wisniewski 1983; Kangas 1946b: 23; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980b, 1983; Kleine 1908c: 185; Kostenko 1929; Kostin 1964: 107; Kurenzov 1934a: 57; Lundberg 1984; Meyer 1918: 178; Michalski & Ratajczak 1989; Nikitsky 1978; Nosek 1952b: 100; Nuorteva 1971; Nusslin 1927: 300; Okolow 1963; Palmen 1946: 194; Pfeffer 1928b: 2, 1932a: 15, 1933: 43, 1949b: 150; Poinar 1975: 151; Ratzelburg 1869a: 79; Roubal 1934a: 86; Ruhm 1956b: 3; Saalas 1949: 342, 371, 1951: 13–14; Schuster 1918: 102; Schwerdtfeger 1944a: 177, 1957a: 184; Sklenkis 1974; Wettstein 1951: 65; Wisniewski 1979b; Zinovjev 1957: 331, 1958: 385. (hb) Altum 1881c: 322; Apfelbeck 1916b, 1917; Bach 1864; Barbey 1901: 22, 68, 1906b, 1925: 246; Beffa 1949, 1961; Budkov 1897; Cabral 1959; Cecconi 1924; Chararas 1961b: 70, 1962c: 419; Charvat 1950; Chorbadzhiyev 1929; Dombrowsky 1887; Drugesco 1980; Eckstein

- 1926: 578; Eichhoff 1881a: 44, 166, 1882a: 241; Eidmann 1962: 161; Ekici 1971; Escherich 1923b: 464, 481, 556; Feytaud 1946, 1950a; Fleischer 1877a; Fuchs 1904a; Gabler 1955; Gornostaev 1916: 310, 1917: 308–315; Grandi 1951; Gyorfi 1957; Hagedorn 1903a; Hanson, H. S. 1937: 185–236; Henschel 1876: 240, 1895a: 162; Holmgren 1867: 128; Jakobjuk 1927: 225, 1928: 102; Johnson & Pettinger 1961b: 2; Joly 1976; Judeich & Nitsche 1895: 527; Karpinski 1933b: 28, 1935: 1–86, 1952: 88; Karpinski & Strawinski 1948: 155; Kleine 1908c: 98, 1911: 158; Knotek 1894a: 557, 1897: 160, 1898b: 333; Kostin 1960: 132; Krivolutsкая 1956: 831, 1960: 77; Kurenzov 1948b: 108; Lekander 1959a: 84; Lengerken 1939: 62, 1954: 82; Lesne 1923: 480–481; Masutti 1964; Michalski 1959a: 291; Nordlinger 1856: 26; Numberg 1929: 102; Nuorteva 1956c: 23, 93; Nusslin 1898: 280, 1913: 259, 1927: 300; Pfeffer 1941b: 2; Qui & Huo 1958: 267; Ratzeburg 1837: 162, 1839: 197; Rhumbler 1922: 301, 1927: 314; Rinski-Korsakov et al. 1949: 288; Rupertsberger 1880: 229; Saalas 1913a: 68, 82, 1949: 342, 371, 1951: 13–14; Schedl 1981b: 66; Schneider 1954: 171; Schwerdtfeger 1944a: 177, 1957a: 184, 1981: 190; Spessivtsev 1913a: 63, 1923: 204; Stark 1926a: 334, 1952: 247; Tragardh 1914: 94, 1939b: 197; Wachtl 1876a: 458, 1901: 381; Weber, H. 1926: 578; Wichmann 1927b: 353; Yakubyl 1959: 40; Zinovjev 1957: 331, 1958: 385. (ds) Acatay 1961: 3; Acloque 1896; Andersch 1851; Arnoldi et al. 1955: 684; Balazy & Michalski 1960; Barthe 1896; Bau 1888; Beffa 1949; Benick 1921; Bielz 1887; Blanchere & Robert 1889; Borchert 1951; Brakman 1966b: 205; Brancsik 1871; Budkov 1897; Buresh & Lazarov 1956; Butovitsch & Heqvist 1947; Cabral 1959; Champion 1894; Chapuis & Candeze 1853; Charvat 1950; Chorbadzhievo 1924d, 1929; Dejean 1821, 1825, 1837; Derenne 1952; Donnisthorpe 1931: 173; Eder 1934; Endrodi 1958b; Ericson & Sandin 1893; Escherich 1923b: 464, 481, 556, 1932b; Esterberg 1928, 1959; Fleischer 1877b; Fuchs 1904a, 1905a; Gaidiene 1976; Gaubil 1849: 126; Gemminger & Harold 1872: 2679; Gerhardt 1896; Gillerfors 1966; Gornostaev 1917; Gozis 1875: 80; Gradojevic 1933; Gredler 1866: 373; Grill 1895: 310; Grouzelle 1905; Grune 1979: 89; Gyllenhal 1827: 624; Hagedorn 1903a, 1910d: 35; Hallett 1923b: 13–14; Hansen, V. 1939, 1956; Heinemann 1908a; Hellen 1947; Henschel 1895a: 162; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 710; Holdhaus & Deubel 1910: 160; Holmgren 1867: 128; Horion 1951; Jazentkovsky 1912: 288; Joly 1976; Judeich & Nitsche 1895: 527; Kaltenbach 1874: 686; Kamp 1979; Kangas 1945; Karpinski 1925: 216, 1931: 26, 1933b: 28, 1948b: 230, 1952: 88, 1954: 141; Karpinski & Strawinski 1948: 155; Keler 1922b: 211, 1925b: 272; Kersten 1933: 74; Kestercanek 1881a; 12; Klefbeck & Sjoberg 1960: 230; Kleine 1908: 98–101, 1911: 158, 1912a: 263, 267, 1913a: 34, 1913b: 114, 1934a: 140; Knotek 1892a: 37, 1894a: 557, 1898b: 333; Koch 1961: 118; Kontkanen 1932: 61; Kostenko 1929; Kozikowsky 1921: 180; Kraatz 1869: 59; Krivolutsкая 1956: 831, 1960: 77, 1983; Kulczynski 1873: 109; Kurenzov 1934a: 57, 1935c: 188, 1936a: 111, 1936b: 357; Kurir 1947c: 6; Lacordaire 1866: 374; Langhoffer 1915c: 157; Larroche & Torossian 1971; Leclercq 1971; Lentz 1857: 138; Lindberg & Saris 1952: 59; Lindemann 1884b: 264; Lomnicki 1886a: 242, 1913b: 148; Lovendal 1890c: 210; Lucht 1987: 277; Lundblad 1950c: 115; Marcu 1926c: 63; Mequignon 1936; Michalski 1957: 164; Moragues 1889: 32; Munster 1928: 289; Negru 1966b: 400; Numberg 1928b: 88, 104, 1954: 45; Nuorteva 1971: 71; Nusslin 1898: 280; Orest 1926c: 63; Palm 1948a: 90, 1985; Palmén 1946: 194; Pfeffer 1924b: 471, 1928b: 2, 1931b: 74, 1935: 159, 1947c: 15, 1950b: 74, 1984: 277, 1989a: 53; Pierce, W. D. 1917: 74; Poppius 1900: 108; Prossen 1913: 83; Pruffer 1948: 23; Ratzeburg 1837: 162, 1839: 197; Redtenbacher 1858: 831, 1874: 374; Reitter 1869b: 154, 1894a: 65, 1916: 287; Rinski-Korsakov et al. 1949: 288; Rossenhauer 1856: 301; Rouhal 1941: 262; Saalas 1913a: 68, 82, 1916: 110–116, 1919, 1931: 69; Sahlberg 1900: 105; Sainte-Claire & Mequignon 1938: 445; Schaufuss 1915: 1230; Schaum 1859: 95, 1862: 101; Schedl 1959h: 99, 1961b: 184, 1964f, 1967c: 70, 1971d: 429, 1975a: 452, 1980a: 13, 1981b: 66; Scheerpeltz & Winkler 1930: 256; Schilsky 1909: 188; Schiodte 1873: 101; Schneider & Leder 1977: 54; Schwerdtfeger 1981: 190; Seidlitz 1872: 393, 1891a: 561, 1891b: 607; Stark 1925: 78–81, 1926a: 334, 1926b: 103, 1926d: 164–167, 1926j: 125, 1931a: 25, 1931d: 546, 1952: 247; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 438; Stierlin & Gautard 1871: 292; Strand 1946: 599; Sturm 1826: 102, 1843: 230; Thomson 1865: 361, 1868: 220; Tragardh 1914: 94, 1939b: 197; Tredl 1907: 12; Wachtl 1876a: 458; Wahnschaffe 1863: 230; Wichmann 1927a: 66; Yanovskii 1974, 1977a, 1986: 64, 1989; Yanovskii & Tegshzhargal 1985: 408; Zinovjev 1955: 187. (tx) Acloque 1896; Bach 1854, 1864; Balachowsky 1949a: 160; Barbey 1901: 22, 68, 1906b; Beffa 1949, 1961; Bertolini 1872; Brancsik 1871; Cabral 1959; Castelnau 1840; Chapuis & Candeze 1853; Charvat 1950; Chorbadzhievo 1924d; Csiki 1909; Dejean 1821, 1825; Doebner 1860; Dombrowsky 1887; Duffy 1953; Eggers 1911a, 1923: 134–135, 1929e: 43, 1933f: 5, 1940g: 36; Eichhoff 1864b: 33, 1868b: 404, 1878b: 75, 1881a: 44, 166, 1883a: 108, 131; Endrodi 1957b; Ericson 1836b: 61; Escherich 1923b: 464, 481, 556; Fauvel 1889; Ferrant 1911; Ferrari 1867a: 6, 79, 1867b: 106, 113; Fleischer 1921, 1927; Formanek 1907: 31; Gabler 1955; Gebien 1907: 197; Grune 1979: 88–89; Gyllenhal 1813: 370, 1827: 624; Hagedorn 1910a: 74; Hansen, V. 1956; Henschel 1876a: 240,

1895a: 162; Herbst 1793: 116, 118; Joly 1976: fig. 140; Judeich & Nitsche 1895: 527; Kalina 1970: 123; Karpinski & Strawinski 1948: 155; Knotek 1892a: 37; Koch 1913: 126, 1928: 102, 1932: 105; Krivolutskaia 1956: 831, 1958: 133; Kuhn 1913: 1054; Kurenzov 1941a: 138, 1948b: 108; Lacordaire 1866: 374; Letzner 1891: 375; Lovendal 1889b: 50, 1890c: 210, 1898: 122; Lucas 1920: 212; Lucht 1987: 277; Negrú 1966b: 400; Niisima 1909: 139; Nordlinger 1848: 241, 1856: 26; Nunberg 1954: 45, 1956: 75; Nusslin 1911a: 277, 338, 377, 89; Pfeffer 1932b: 17, 1933, 1941b: 2, 1942c: 208, 1947e: 15, 1955c: 155, 1959a: 6; Portevin 1935: 323; Quaschik 1953: 35; Ratzeburg 1837: 162, 1839: 197; Redtenbacher 1849a: 792, 1849b: 26, 1858: 831, 1874: 374; Reitter 1894a: 65, 1913a: 62, 1916: 287; Rhumbler 1922: 301, 1927: 314; Rupertsberger 1880: 229; Saalas 1913a: 68, 82, 1919: 1–415, 1949: 342, 371; Sahlberg 1836: 154, 1839: 140; Schedl 1934f: 1637, 1946a: 8, 1952f: 87, 1959h: 99, 1980a: 13, 1981b: 66; Schimitschek 1937c: 52, 1955c: 82; Seidlitz 1872: 393, 1891a: 561, 1891b: 607; Sokanovskii 1954: 16, 1958: 38; Spessivtsev 1913a: 63, 1922a: 468, 1923: 468, 490, 1925a: 170, 1925b: 15, 1931: 45; Stark 1952: 247; Stierlin 1898: 438; Stresemann et al. 1989: 353; Thomson 1865: 361, 1868: 220; Tsai & Li 1959: 87. **(ms)** Escherich 1932b; Heinemann 1908a; Lckander 1959a: 84; Lucas 1920: 212; Michalski 1959a: 291.

tenerimus Sahlberg 1836: 140 (*Hylesinus*). Syn-types, sex?; Finland; not located. Synonymy: Schedl 1946a: 9.

References: **(hb)** Wachtl 1876a: 458. **(ds)** Bedel 1888b: 395, 413; Calver 1884, 1893; Hagedorn 1910d: 35; Schaum 1862: 101; Schilsky 1909: 188; Stein 1868: 113; Stein & Weise 1877: 164; Wachtl 1876a: 458. **(tx)** Bedel 1888b: 395, 413; Ferrari 1867a: 6; Gemminger & Harold 1872: 2675; Letzner 1891: 375; Sahlberg 1836: 140; Schedl 1946a: 8–9.

atticus Eggers 1911: 120. Syntypes, sex?; Attica; Landesmus (Sarajevo) and Eggers Collections, 1 Eggers syntype in NHMW, Wien. Synonymy: Schedl 1946a: 9.

Notes: (1) Schedl 1979c: 31 (citation of holotype invalid).

References: **(ds)** Kleine 1913b: 114; Normand 1949: 104; Pfeffer 1947d: 128; Schaufuss 1915: 1230. **(tx)** Balachowsky 1949a: 160; Eggers 1911: 120; Pfeffer 1942b: 208–209, 1955a: 152; Reitter 1913a: 63–64; Schedl 1934f: 1637, 1946a: 9, 1979c: 31.

corsicus Eggers 1923: 135. Lectotype ♀; Asco, Foret Carozzica, Corsica; USNM, Washington, designated by Anderson & Anderson 1971: 10. Synonymy: Schedl 1946a: 9.

References: **(ds)** Pfeffer 1947d: 127; Sainte-Claire & Mequignon 1938: 445. **(tx)** Anderson, W. H. & Anderson 1971: 10; Balachowsky

1949a: 160; Eggers 1923: 135; Pfeffer 1942b: 208–289; Schedl 1934f: 1637, 1946a: 9, 1979c: 66.

subcribrosus Eggers 1933f: 5. Holotype, sex?; Bruck a.d. Mur (Steiermark); USNM, Washington. Synonymy: Schedl 1946a: 9.

References: **(ay)** Nunberg 1955: 75. **(bv)** Nuorteva 1956c: 28. **(cn)** Pfeffer 1948a: 800, 1950c: 2. **(ec)** Kangas 1946b: 23; Lundberg 1984; Nuorteva 1971: 70; Pfeffer 1950c: 2, 1955b: 84. **(hb)** Karpinski 1952: 88; Kurenzov 1948a: 51, 1950d: 204; Nuorteva 1956c: 28; Pfeffer 1941c: 5; Schneider 1954: 174; Stark 1952: 246. **(ds)** Arnoldi et al. 1955: 686; Bejer-Petersen & Jorun 1977: 21; Bistrom & Vaisanen 1988: 42; Brakman 1966b: 205; Hansen, V. 1939, 1956, 1964: 460; Hellen 1947; Horion 1935; Kangas 1945; Karmizaki 1952: 85; Karpinski 1952: 88, 1954: 141–142; Klebeck & Sjöberg 1960: 230; Krivolutskaia 1953; Linnman 1965: 27; Lundberg 1979: 31, 1980: 149; Nuorteva 1971: 67; Palm 1946: 122; Pfeffer 1930a: 16, 1931b: 74, 1947c: 3; Reitter 1916: 350; Rouhal 1935b: 72, 1941: 262; Stark 1952: 246; Strand 1946: 599; Wegelius 1960: 106; Yanovskii & Tegshzhargal 1984: 415; Zinovjev 1955: 187. **(tx)** Anderson, W. H. & Anderson 1971: 32; Balachowsky 1949a: 160; Eggers 1933f: 5; Hansen, V. 1956, 1964: 460; Michalski 1969b: 567; Nunberg 1956: 75; Pfeffer 1932b: 24, 1941c: 5, 1942b: 208, 1947e: 3, 1955a: 156; Reitter 1916: 350; Schedl 1946a: 9, 1979c: 243; Sokanovskii 1954: 16; Stark 1952: 246.

apfelbecki Eggers 1940g: 36. Lectotype, sex?; Bosnien (Borke bei Sarajevo); USNM, Washington, designated by Anderson & Anderson 1971: 4. Synonymy: Schedl 1946a: 9.

References: **(cn)** Schimitschek 1944: 168, 1952c: 59. **(ec)** Galoux 1947b; Schimitschek 1941a: 305. **(hb)** Schimitschek 1944: 168. **(tx)** Anderson, W. H. & Anderson 1971: 4; Balachowsky 1949a: 160; Eggers 1940g: 36–40; Pfeffer 1942b: 208, 212, 1955a: 153; Schedl 1946a: 9, 1979c: 22.

concolor (Wollaston) 1864: 263 (*Aphanarthrum*).

Lectotype, sex?; Canary Islands: Palma; BMNH, London, designated by Israelson 1972: 257.

Figures: Israelson 1972: fig. 25 (male genitalia).

Distribution: Africa (Ferro, Hierro, Palma, Tenerife in Canary Islands).

Hosts: *Pinus canariensis*.

References: **(ay)** Israelson 1972: 257. **(cn)** Souphieff & Scherbinovskaja 1937: 47. **(ds)** Gemminger & Harold 1872: 2679; Hagedorn 1910d: 36; Kleine 1913b: 114, 1914a: 21; Peyerimhoff 1933b: 371; Schedl 1971d: 425; Schedl, Lindberg, & Lindberg 1959: 17; Souphieff & Scherbinovskaja 1937: 47. **(tx)** Eggers 1923: 135; Eichhoff 1878b: 75; Ferrari 1867a: 6, 1868: 254; Hagedorn 1910a:

- 74; Israelson 1972: 254, 257; Pfeffer 1942b: 207, 213; Schedl 1934f: 1637, 1946a: 12, 1979c: 61; Schedl, Lindberg, & Lindberg 1959: 17; Wollaston 1864: 263, 1865: 244, 1871: 264.
- hispidulus Thomson** 1870: 338. Syntypes, sex?, Norra Skane, Sweden; not located.
- Figures: Grune 1979: 86, Pfeffer 1989a: pl. 6, Tsai & Li 1959: 88.
- Distribution: Asia (Sakhalin Island, Siberia in E USSR), Europe (Austria/ Bulgaria/ Czechoslovakia/ Denmark/ Finland/ Germany/ Hungary/ Norway/ Poland/ Sweden/ W USSR).
- Hosts: *Picea* spp., *Pinus* spp., rare in *Abies* spp., *Larix europaea*.
- References: **(bv)** Grune 1979: 87; Nuorteva 1956c: 28; Rozhkov 1970: 140. **(cn)** Chorbadzhiyev 1929; Esterberg 1959; Kurenzov 1935c: 192; Nester-tschuk 1930: 176; Nosek 1951: 106; Pfeffer 1949b: 150, 1950c: 1; Saalas 1949: 342, 371. **(cc)** Apfelbeck 1816b; Balazy & Michalski 1960, 1964b; Kangas 1946b: 22; Kielczewski 1976; Kielszewski, Moser, & Wisniewski 1983; Kielszewski & Wisniewski 1978, 1983; Kurenzov 1934a: 54, 57; Lundberg 1984; Michalski & Ratajczak 1989; Mokrzecki 1923: 32; Nosek 1951: 106; Nuorteva 1956a: 18, 1971; Okolow 1963; Pfeffer 1932a: 11, 1949b: 150, 1950c: 1; Poinar 1975: 151; Saalas 1917a: 18, 1928: 649, 1949: 342, 371, 1951: 18; Sklenkis 1974. **(hb)** Apfelbeck 1916b, 1917; Chorbadzhiyev 1929; Karpinski 1933b: 28, 1935: 1–86; Karpinski & Strawinski 1948: 155; Krivolutskaya 1956: 831, 1960: 78, 1973: 134; Kurenzov 1935a: 30, 1948b: 108, 1950d: 234; Lengerken 1939: 62, 1954: 82; Nunberg 1929: 102; Nuorteva 1956c: 28; Pfeffer 1941c: 5; Postner 1974: 422; Rozhkov 1970: 140; Saalas 1913a: 68, 82, 1949: 342, 371, 1951: 18; Schedl 1981b: 66; Spessivtsev 1923: 204; Stark 1952: 252; Tschorbadiyev 1929: 165. **(ds)** Ammann & Knabl 1923; Balazy & Michalski 1960; Bangsholt 1975: 95; Bejer-Petersen & Jorum 1977: 20; Bistrom & Vaisanen 1988: 42; Brakman 1966b: 205; Buresh & Lazarov 1956; Butovitsch & Heqvist 1947; Chorbadzhiyev 1929; Eder 1934; Endrodi 1958b; Ericson & Sandin 1893; Escherich 1932b; Esterberg 1959; Grill 1895: 310; Grune 1979: 87; Hagedorn 1910d: 36; Hansen, V. 1929: 140–141, 1939, 1956, 1964: 460; Hellen 1947; Heyden, Reitter, & Weise 1891: 670, 1906: 710; Heyrovsky 1929: 37–38; Holzel 1951; Horion 1935, 1951; Janetschek 1957: 262; Kangas 1945; Karpinski 1931: 19, 26, 1933b: 28, 1948b: 229; Karpinski & Strawinski 1948: 155; Keler 1922b: 210; Klebeck & Sjöberg 1960: 230; Kleine 1913b: 114, 1934a: 140; Krivolutskaya 1956: 831, 1960: 78, 1965a: 232, 1973: 134, 1983; Kurenzov 1934a: 54, 57, 1935a: 30, 1935c: 192, 1936b: 351, 1938a: 63; Lindberg & Saris 1952: 59; Lucht 1987: 277; Lundblad 1950c: 115; Mahler 1987: 232; Nunberg 1927a: 213, 1928b: 85, 88, 104, 1954: 45; Nuorteva 1971: 67; Palm 1946: 122; Pfeffer 1923b: 106, 1930b: 120, 1931b: 75, 1932: 1936b: 90, 1947e: 3, 1950b: 74, 1989a: 53; Postner 1974: 422; Reitter 1894a: 64, 1913: 61; 1916: 287, 350; Roubal 1941: 262; Rozhkov 1970: 140; Saalas 1913a: 68, 82, 1914: 304–306, 1916: 110–116, 1917a: 18, 1919, 1931: 68; Sahlberg 1900: 105; Sainte-Claire 1914: 471; Schaufuss 1915: 1230; Schedl 1980a: 13, 1981b: 66; Stark 1931a: 25, 1952: 252; Strand 1946: 599; Tschorbadiyev 1929: 165; Wanka 1917: 282; Wegelius 1960: 106; Wichmann 1927a: 65–66; Wiren 1945: 43; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 415; Zinovjev 1955: 187. **(tx)** Eggers 1914, 1932e: 81; Endrodi 1957a: 307, 1957b; Fleischer 1927; Grune 1979: 86; Hagedorn 1919d: 74; Hansen, V. 1956; Karpinski & Strawinski 1948; Krivolutskaya 1956: 831, 1958: 133; Kurenzov 1941a: 26, 36, 139–140, 1948b: 108, 1956: 826–839; Letzner 1891: 374; Lucht 1987: 277; Nunberg 1954: 45; Pfeffer 1932b: 17, 1941c: 5, 1942b: 208–209, 213, 1947e: 3, 1989a: pl. 6; Postner 1974: 422; Reitter 1894a: 64, 1913a: 61, 1916: 287, 350; Saalas 1913a: 68, 82, 1949: 371, 432; Schedl 1934f: 1637, 1946a: 8, 1980a: 13; Sokanovskii 1929: 670–672; Spessivtsev 1922a: 468, 491, 1923: 200–214, 1925a: 170, 1925b: 15, 1931: 46; Stark 1952: 252; Thomson 1870: 338; Tsai & Li 1959: 88. **(ms)** Escherich 1932b; Schimitschek 1930b: 407.
- mediterraneus Eichhoff** in Puton 1869: 41). Syntypes, sex?, St. Tropez, Hyeres; 1 lost with Hamburg Museum, others not located.
- Figures: Grune 1979: 88, Questionne 1979: 114.
- Distribution: Africa (Algeria/ Morocco/ Tunisia), Asia (Israel/ Turkey), Europe (Corsica/ Cyprus/ France/ Greece/ Italy/ Portugal/ Spain).
- Hosts: *Pinus pinaster*, *P. brutia*, *P. halepensis*, *P. nigra*, *P. pinca*.
- Notes: (3) Eichhoff validated the name in Puton 1869: 41, then republished it in Eichhoff 1872d: 139.
- References: **(bv)** Grune 1979: 117; Mendel, Madar, & Golan 1985. **(cn)** Barbey 1922a; Espanol 1964a; Grandi 1951; Joly 1976; Questionne 1979: 117. **(cc)** Barbey 1924b; Halperin & Holzschuh 1984: 24. **(hb)** Barbey 1906b: 217–220; Chararas 1962c: 423; Dombrowsky 1887; Eichhoff 1869: 41 (in Puton), 1881a: 44, 168; Grandi 1951; Halperin & Holzschuh 1984: 24; Henschel 1895a: 162; Joly 1976; Mendel, Madar, & Golan 1985; Postner 1974: 423; Puton 1869: 41–42; Questionne 1979: 117; Wachtl 1876a: 458; Zocchi 1959: 105. **(ds)** Barbey 1922a, 1924b; Binaghi 1967; Calwer 1884, 1893; Faniel 1885; Gemminger & Harold 1872: 2679; Georghion 1977: 73; Cozis 1875: 80; Grune 1979: 89; Halperin 1966: 69; Halperin & Holzschuh 1984: 24; Henschel 1895a: 162; Joly 1976; Moragnes 1889: 32; Pfeffer 1947d: 126; Pinheiro 1965: 359–364; Postner 1974: 423; Schedl 1961b:

- 184, 1964f, 1967c: 70, 1969g: 291, 1971d: 427, 1972n: 350, 1978e: 36, 1979i: 291; Schilsky 1909: 188; Stein & Weise 1877: 164; Wachtl 1876a: 458; Zocchi 1959: 105. (**tx**) Balachowsky 1949a: 161; Barbey 1906b; Dombrowsky 1887; Eggers 1923: 134; Eichhoff 1869: 41 (in Puton), 1872d: 139, 1878b: 81, 1881a: 44, 168, 1883a: 108, 131; Fauvel 1885; Grune 1979: 88, 89; Henschel 1895a: 162; Joly 1976; Pfeffer 1942b: 208, 212, 1955a: 152; Postner 1974: 423; Questienne 1979: 114; Rey 1892b: 30; Schedl 1934f: 1637, 1946a: 10, 1960: 163.
- dubius* Eichhoff 1875a: 139. Holotype, sex?; Pyrenaei; Hamburg Museum, lost. Synonymy: Schedl 1960b: 163.
- References: (**hb**) Dombrowsky 1887; Eichhoff 1881a: 44, 168; Henschel 1895a: 162; Wachtl 1876a: 458. (**ds**) Barthe 1896; Calwer 1884, 1893; Gemminger & Harold 1872: 2679; Gozis 1875: 80; Henschel 1895a: 162; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 710; Schedl 1964f; Schilsky 1909: 188; Stein & Weise 1877: 164; Wachtl 1876a: 458. (**tx**) Dombrowsky 1887; Eichhoff 1875a: 139, 1878b: 82, 1881a: 44, 168, 1883a: 108, 131; Fauvel 1887; Henschel 1895a: 162; Pfeffer 1942: 218; Reitter 1913a: 62–63; Schedl 1934f: 1637, 1946a: 11, 1960b: 163.
- numidicus** Ferrari 1867a: 6. Syntypes ♂; Algeria; NHMW, Wien?
- Figures: Grune 1979: 88.
- Distribution: Africa (Algeria/ Tunisia), Asia (Turkey), Europe (Bulgaria/ Corsica/ France/ Greece/ Hungary/ Italy/ Spain/ W USSR/ Yugoslavia).
- Hosts: *Abies pinsapo*, *A. numidica*, *Cedrus libanotica*, *Pinus halepensis*, *P. pinaster*, *P. pithyusa*, *P. leucodermis*.
- References: (**bv**) Grune 1979: 89. (**cn**) Bezares 1929: 38–42; Grandi 1951; Kailidis & Georgevits 1972; Koch 1913: 127; Schimitschek 1941: 171, 1952c: 69; Strohmeier 1930: 7; Wachtl 1901: 381. (**ec**) Halperin & Holzschuh 1984: 25; Kleine 1908c: 185; Novak, P. 1952: 414; Schimitschek 1941a: 320. (**hb**) Cecconi 1924; Dombrowsky 1887; Grandi 1951; Halperin & Holzschuh 1984: 25; Knotek 1898b: 333, 1899b: 14, 1901: 573; Masutti 1964; Peyerimhoff 1919: 253–254; Postner 1974: 423; Puton 1869: 41; Schimitschek 1944: 171; Stark 1952: 249; Strohmeier 1930: 7; Wachtl 1876a: 458, 1901: 381. (**ds**) Barthe 1896; Cecconi 1897; Eggers 1912f; Escalera 1919; Friederichs 1919; Ganglbauer 1904; Grune 1979: 89; Hagedorn 1910d: 36; Halperin & Holzschuh 1984: 25; Heyden, Reitter, & Weise 1883: 181, 1891: 670; Kailidis & Georgevits 1972; Kleine 1913a: 34, 1913b: 114, 1914a: 16, 1934a: 140; Knotek 1898b: 333, 1899b: 14, 1901: 573; Langhoffer 1915c: 157; Mequignon 1936: 54; Normand 1937: 268; Novak, P. 1952: 414, 1964: Paganetti-Hummeler 1901: 150; Peyerimhoff 1919: 253–254, 1933b: 367; Pfeffer 1942b: 208, 212, 1947d: 125, 1954: 277; Pittioni 1943: 176; Postner 1974: 423; Ragusa 1924: 116; Reitter 1894a: 65; Sahlberg 1903b: 63; Sainte-Claire & Mequignon 1938: 445; Schedl 1938d: 450, 1964f, 1967c: 70, 1971d: 427; Schilsky 1909: 188; Stark 1927b: 88, 1952: 249; Stein 1868: 114; Stein & Weise 1877: 164; Tredl 1907: 12; Wachtl 1876a: 458. (**tx**) Balchowsky 1949a: 161; Ceballos 1945; Csiki 1909; Dombrowsky 1887; Eggers 1911a: 123, 1912f: 29, 1923: 133–139; Eichhoff 1868d: 419; Fauvel 1889; Ferrari 1867a: 6, 79, 1867b: 106; Gebien 1907: 197; Grune 1979: 88, 89; Hagedorn 1910a: 74; Koch 1913: 127; Peyerimhoff 1911: 314; Portevin 1935: 323; Postner 1974: 423; Reitter 1894a: 65, 1913a: 63; Rey 1892b: 30; Schedl 1934f: 1637, 1946a: 10, 13; Stark 1952: 249; Strohmeier 1929: 182. (**ms**) Eichhoff 1868d: 419.
- numidicus abbreviatus* Eggers 1911: 123. Lectotype, sex?; Mostar blato (Herzegowina); USNM, Washington, designated by Anderson & Anderson 1971: 3. Synonymy: Schedl 1946a: 13. References: (**ds**) Pfeffer 1947d: 128. (**tx**) Anderson, W. H. & Anderson 1971: 3; Eggers 1911: 123; Pfeffer 1942b: 208; Reitter 1913a: 63; Schedl 1934f: 1637, 1946a: 13, 1979c: 173.
- brevipennis* Reitter 1913a: 63. Syntypes, sex?; Attica, Greece; NHMB, Budapest. Synonymy: Pfeffer 1942: 217.
- References: (**ds**) Arnoldi et al. 1955: 684; Schanfuss 1915: 1230. (**tx**) Pfeffer 1942: 217; Reitter 1913a: 63; Schedl 1934f: 1637.
- barbeyi* Strohmeier 1929b: 182. Holotype, sex?; Sierra de Ronda in Sudspanien; Strohmeier Collection. Synonymy: Schedl 1946a: 15.
- References: (**cn**) Strohmeier 1930: 7. (**hb**) Strohmeier 1930: 7. (**ds**) Kleine 1934a: 139; Peyerimhoff 1933b: 362; Pfeffer 1942: 220. (**tx**) Balachowsky 1949a: 161; Schedl 1934f: 1637, 1946a: 15; Strohmeier 1929b: 182, 1930: 1–7.
- pusillus** (Gyllenhal) 1813: 371 (*Bostrichus*). Syntypes, sex?; presumably Sweden; presumably at UZI, Uppsala.
- Figures: Balachowsky 1949a: 162 (adult), Grune 1979: 86, Kalina 1970: 122, Nobuchi 1966d: pl. 2, Postner 1974: 421.
- Distribution: Africa (Algeria/ Egypt/ Libya/ Morocco/ Tunisia), Asia (Xizang [Tibet] in China/ Himachal Pradesh, Kashmir, Punjab, Uttar Pradesh in India/ Japan/ Korea/ Kuril Islands/ Nepal/ Pakistan/ Taiwan/ Turkey/ Sakhalin Island, Siberia in E USSR), Europe (Austria/ Belgium/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Lithuania/ Luxembourg/ Netherlands/ Norway/ Poland/ Portugal/ Romania/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), introduced into North America (New Brunswick, Nova Scotia, Ontario, Quebec in Canada/ Connecticut,

Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island in USA).

Hosts: *Abies* spp., *Pinus* spp., *Picea* spp., *Cedrus deodara*, *C. libani*.

References: (ay) Chararas 1956c; Escherich 1923b: 481, 602; Feytaud 1950a; Imhoff 1856: 228; Klimesch 1914: 215; Lekander 1959b: 60; Nunberg 1928a: 140, 1955: 76; Scherb 1971. (bv) Chararas & Deschamps 1962; Grune 1979: 87; Naumann-Etienne 1978a; Nuorteva 1956c: 93; Rozhkov 1970: 140. (cn) Baisch 1954: 322; Barbey 1906a, 1922a; Borcea 1924; Bromley 1928: 89–110; Brown, R. M. & Winter 1981; Chamberlin 1924; Chararas 1960a: 29, 1961b: 70, 1961c: 94; Chorbazdzhevo 1929; Eckstein 1926: 578; Escherich 1923b: 481, 602; Esterberg 1959; Feytaud 1946, 1950a; Fleischer 1877a; Gabler 1955; Grandi 1951; Gusev 1928: 144; Herlein 1878; Hess 1898: 350; Hess & Beck 1914: 266, 1927: 321; Hopkins 1899c: 365, 448; Inouye 1955; Inouye & Yamaguchi 1955a: 235; Johnson 1897: 78–79; Joly 1976; Judeich & Nitsche 1895: 527; Kailidis 1964a; Kailidis & Georgivits 1972; Kalandra 1944; Kamp 1950; Kholodkovskii 1912: 305; Koch 1913: 127; Koppen 1882: 236, 251; Kovacevic 1952: 69, 1957: 67; Lindquist, O. H. & Syme 1981: 34; Marcu 1926c: 62; Muller 1912: 184; Nestertschuk 1930: 176; Nosek 1951: 106, 1952b: 100; Nusslin 1913: 227; Pfeffer 1950c: 1; Pierce, W. D. 1917: 69; Rhumbler 1922: 301, 1927: 314; Russo 1946a: 24, 42, 1946b: 312; Saalas 1919: 1–415, 1949: 342, 371; Sargos 1947: 8; Schenk 1926: 37–69; Schimitschek 1937c: 52, 1938b: 114, 1955c: 82; Schneeberg 1925: 495; Schwerdtfeger 1944a: 181, 1957a: 187; Shiraki 1952; Smith, J. B. 1900: 365; Stebbing 1914: 499; Strommeyer 1950: 21; Syme & Nystrom 1988: 35; Thalenhorst 1950: 90; Thomson 1939: 200; Wachtl 1901: 381; Weber, H. 1926: 578; Wolff & Krausse 1922: 88. (cc) Apfelbeck 1916b; Baisch 1954: 322; Balazy 1965a; Balazy & Michalski 1960, 1964b; Barbey 1906a; Beeson 1922c; Beran 1936; Blackman & Stage 1918: 55; Chararas 1959c, 1960a: 29, 1964b; Felt 1906: 752; Fleischer 1877a, 1877b; Fuchs 1930, 1938; Galoux 1947b, 1947c; Grunwald 1986; Inouye & Yamaguchi 1955a: 235; Inouye et al. 1955: 60–61; Kangas 1946b: 22; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980a, 1983; Kleine 1908c: 185, 1909a: 46, 76, 1944: 70; Kostin 1964: 107; Krogerus 1927: 123; Kurenzov 1934a: 57; Langor 1985; Lindberg 1984; Masutti 1959: 268, 298; Michalski & Ratajczak 1989; Naumann-Etienne 1978a; Nishiguchi 1960c; Nosek 1951: 106, 1952b: 100; Nuorteva 1956a: 18, 1971: 70; Nusslin 1927: 300; Okolow 1963; Palmén 1946: 194; Perris 1852: 497, 1853: 571, 1854a: 96, 1856a: 201, 1862: 212; Pfeffer 1923a: 331, 1932a: 11, 1950c: 1; Poinar 1975: 151; Ratzburg 1869a:

79; Roubal 1934a: 86; Ruhm 1956b: 3; Russo 1946a: 24, 42; Saalas 1917a: 18, 1949: 342, 371, 1951: 13–14; Scheucher 1959: 151; Schimitschek 1930a: 339, 1931b: 487; Schwerdtfeger 1944a: 181, 1957a: 187; Sedlaczek 1908: 67, 1935a: 163; Seitner 1913a: 27; Stebbing 1914: 499; Woodring & Moser 1970. (hb) Altum 1881c: 286; Apfelbeck 1916b, 1917; Bach 1854: 137, 1864; Barbey 1901: 22, 68, 1913; Beeson 1922c: 495; Beran 1936; Blackman & Stage 1918; Borcea 1924; Bukowsky 1930; Cabral 1959; Cecconi 1906, 1924; Chamberlin 1939: 118; Chararas 1956c; Charvat 1950; Chittenden 1890, 1899a; Chorbazdzhevo 1929; Deyrup & Atkinson 1987b: 67; Dombrowsky 1887; Eckstein 1897, 1926: 578; Eichhoff 1881a: 44, 165, 1882a: 241; Escherich 1923b: 481, 602; Essig 1942: 604; Everts 1903: 753; Felt 1906: 752; Feytaud 1946, 1950a; Fleischer 1877a; Fuchs 1904a, 1907; Gabler 1955; Gornostaev 1916: 310; Grandi 1951; Györfi 1957; Hagedorn 1903a; Hartig 1834: 110–162; Henschel 1876a: 34, 240, 1885b, 1895a: 112; Hess 1898: 350; Hess & Beck 1914: 266, 1927: 321; Holmgren 1867: 128; Hopkins 1899c: 365, 448; Inouye et al. 1955: 60–61; Jakobjuk 1927: 225; Judeich & Nitsche 1895: 527; Karpinski 1933b: 28; Karpinski & Stravinski 1948: 155; Karsch 1883: 143; Keller 1910: 26; Kholodkovskii 1912: 305; Knotek 1894a: 557, 1897: 160, 1898b: 333; Krivolutskaia 1956: 832; Kurenzov 1935a: 30, 1948b: 108, 1950d: 234; Landin 1953: 24, 99; Lekander 1959b: 60; Lengerken 1939: 61, 1954: 82; Lunardon & Leonardi 1889: 456; Marcu 1941: 403; Masutti 1959: 268, 298; Niisima 1908b: 18; Nordlinger 1856: 26; Nunberg 1929: 102, 1947c: 106; Nuorteva 1956c: 93; Nusslin 1898: 280, 1913: 227, 1927: 300; Perris 1852: 497, 1856a: 201–202; Peyerimhoff 1919: 169; Pfeffer 1941c: 5; Postner 1974: 422; Pütou 1869: 41; Ratzburg 1837: 139, 162, 1839: 165, 196; Rhumbler 1922: 301, 1927: 314; Rupertsberger 1879: 231, 1880: 228; Russo 1946b: 297, 312; Saalas 1949: 342, 371, 1951: 13–14; Schimitschek 1930a: 339; Schwarz 1894a: 17; Schwerdtfeger 1944a: 181, 1957a: 187, 1981: 193; Sedlaczek 1935a: 163; Spessivtsev 1913a: 63, 1923: 204; Stark 1926a: 334, 1952: 250; Stebbing 1914: 327, 499; Swaine 1907: 191, 1912b: 141; Tragardh 1914: 93, 1939b: 197; Tschorbazdzhevo 1929: 165; Wachtl 1876a: 458, 1901: 381; Weber, H. 1926: 578; Wolff & Krausse 1922: 88. (ds) Ammann & Knabl 1913, 1923; Andersch 1851; Audras & Schaefer 1957; Balazy & Michalski 1960; Barbey 1922a; Barthé 1896; Bau 1888; Bedel 1888b: 395, 413; Beeson 1922c; Bejer-Petersen & Jørum 1977: 20; Bickhardt 1916; Bielz 1851, 1887; Blanchère & Robert 1889; Blandford 1894c; Blatchley & Leng 1916: 651; Borcea 1924: 221–260; Borchert 1951; Borodajewsky 1915: 1222–1247; Brakman 1966b: 205; Brancsik 1871, 1906; Bright 1976d: 114; Brown, R. M. & Winter 1981; Bucking 1932; Bukowsky 1930; Butovitsch &

- Heqvist 1947; Cabral 1959; Calwer 1884, 1893; Carpentier & Delahy 1908; Cecconi 1906; Chamberlin 1939: 118; Chapuis & Candeze 1853; Charvat 1959; Chittenden 1890, 1899a; Cho 1957; Choo 1983; Choo, Woo, & Nobuchi 1988a: 134; Chorbadzhievo 1924d, 1929; Dejean 1821, 1825, 1837; Deyrup 1981b: 6; Deyrup & Atkinson 1987b: 67; Donisthorpe 1931: 173; Drooz 1985: 362; Eder 1934; Eggers 1904; Endrodi 1958b; Ericson & Sandin 1893; Escherich 1923b: 481, 602, 1932b; Esterberg 1928, 1959; Everts 1922: 640; Fauvel 1885; Favre 1890; Fleischer 1877b; Fleischer et al. 1923; Fricken 1889: 342; Fuchs 1904a, 1905a, 1907; Gaubil 1849: 126; Gemminger & Harold 1872: 2679; Gobang 1855: 745; Gobbi 1989: 61; Gornostaev 1917; Gozis 1875: 80; Gredler 1866: 373; Grill 1895: 310; Grouzelle 1905; Grune 1979: 87; Gyllenhal 1827: 624; Hagedorn 1903a, 1910d: 36; Hamilton 1893: 143, 1894b: 407; Hansen, V. 1939, 1956, 1964: 460; Heinemann 1908a; Heller 1947; Hennig 1954: 257; Henschel 1895a: 162; Henshaw 1887: 8, 1895: 44; Heyden 1876: 299, 1890: 132; Heyden, Reitter, & Weise 1883: 181, 1891: 670, 1906: 710; Holmgren 1867: 128; Holzel 1946: 81; Hopkins 1893a: 143, 1893b: 213; Horion 1951; Hormuzaki 1891: 174; Hubault 1923b; Jazentkovsky 1912: 288; Joly 1976; Judeich & Nitsche 1895: 527; Kailidis 1964a: 41–54; Kailidis & Georgevits 1972; Kaltenbach 1874: 685; Kangas 1945; Karpinski 1925: 216, 1926: 82, 1931: 26, 1933b: 28, 1935: 1–86, 1948b: 230; Karpinski & Strawinski 1948: 155; Keler 1922b: 211, 1925b: 271; Keller 1910: 26; Kersten 1933: 77; Kestercanek 1881a: 12; Kiefer et al. 1942: 528; Kharitonov 1924: 199–204; Klefbeck & Sjöberg 1960: 230; Kleine 1908: 98–101, 1911: 158, 1912a: 262, 267, 1913a: 34, 1913b: 114, 1914a: 16, 1914b: 256, 1934a: 140; Kloft & Hinks 1945: 218; Knotek 1892a: 36, 1894a: 557, 1895b: 333; Ko 1969: 276; Koltze 1901: 153; Kono 1938b: 64; Kono & Tamannki 1939: 93; Koppen 1882: 236, 257; Kotula 1873b: 80; Kovacevic 1957: 67; Kozikowsky 1921: 180; Kraatz 1869: 59; Kraemer 1948: 133; Krivolutskaya 1956: 832, 1960: 78, 1965: 232, 1973: 134, 1983; Kurenzov 1934a: 57, 1935a: 30, 1936b: 350; Kurir 1947c: 14; Lacordaire 1866: 374; Langhoffer 1915c: 157; Leclercq 1971; Leiler & Prutz 1977; Leng 1918: 210; Lentz 1857: 138; Liegel 1886: 43; Lindemann 1884b: 264; Lindquist & Prutz 1977; Lindquist, O. 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B. 1900: 365, 1910: 404; Stark 1925: 78–81, 1926a: 334, 1926b: 103, 1926j: 125, 1931a: 25, 1931d: 546, 1952: 250; Stein 1868: 114; Stein & Weise 1877: 164; Stierlin 1898: 438; Stierlin & Gautard 1871: 292, 1906: 205; Strand 1946: 599; Strauch 1861: 122; Sturm 1826: 102, 1843: 230; Swaine 1909: 94; Syme & Nystrom 1888: 35; Thomson 1859: 147, 1865: 361, 1868: 220; Tragardh 1914: 93, 1939b: 197; Tredl 1907: 11; Tschorbadzhiev 1929: 165; Villa & Villa 1833: 26; Wachtl 1876a: 458; West 1938: 184; Westhoff 1882: 238; Wichmann 1924: 15, 1927a: 65–66; Wood, S. L. 1977a: 69, 1982b: 741; Yanovskii & Tegshzhargal 1985: 415; Yin & Huang 1981: 561; Zetterstedt 1840: 194; Zoufal 1920: 21. (tx) Altman 1844; Bach 1854, 1864; Balachowsky 1949a: 158, 162; Barbey 1901: 22, 68; Bedel 1888b: 395, 412; Bertolini 1872; Blandford 1894d: 82, 1898c: 6; Blatchley & Leng 1916: 651; Brancsik 1871; Bright 1976d: 114; Cabral 1959; Calwer 1858; Carpentier & Delahy 1908; Chamberlin 1939: 118; Chapuis & Candeze 1853; Chararas 1956c; Charvat 1950; Choo 1983; Chorbadzhievo 1924d; Csiki 1909; Dejean 1821, 1825; Doebner 1860, 1862: 167; Dombrowsky 1887; Duffy 1953; Eggers 1914: 296–297, 1922c, 1923b: 134–135, 1929e: 43, 1932e: 8, 1933f: 5; Eichhoff 1864b: 33, 1868b: 404, 1878b: 73, 1881a: 44, 165, 1883a: 108, 131; Endrodi 1957b; Ericson 1836: 61; Escherich 1923b: 481, 602; Escherich & Escherich 1897; Essig 1942: 604; Everts 1903: 753, 1922: 640; Fauvel 1885, 1889; Ferrant 1911; Ferrari 1867a: 6, 1867b: 113, 1868: 251; Fleischer 1905, 1927; Formanek 1907: 31; Fricken 1889: 342; Gabler 1955; Gebien 1907: 197; Grune 1979: 86–87; Gyllenhal 1813: 371, 1827: 624; Hagedorn 1910a:

74; Hansen, V. 1956, 1964: 460; Henschel 1876a: 34, 240, 1878a, 1895a: 162; Hopkins 1914: 119, 1915c: pl. 9, fig. 7, pl. 11, fig. 7; Houlbert 1922a: pl. 1; Joly 1976; Judeich & Nitsche 1895: 527; Kalina 1970: 121–122; Karpinski & Strawinski 1948: 155; Knotek 1892a: 36; Koch 1913: 127, 1928: 102, 1932: 105; Krivolutsкая 1956: 832, 1958: 133; Kuhlnt 1913: 1054; Kurenzov 1941a: 139, 1948b: 108; Lacordaire 1866: 374; Lekander 1959b: 60; Lindquist, O. H. & Syne 1981: 34; Lovendal 1889b: 50, 1898: 120; Lucht 1987: 2771; Lmardoni & Leonardi 1889: 456; Murayama 1930b: 12, 16, 30, 1936a: 127, 1937b: 574, 1953a: 12, 1954a: 11, 1954b: 164; Negru 1966b: 400; Niisima 1909: 139–140; Nobuchi 1966d: 18, pl. 2; Nordlinger 1848: 241, 1856: 26; Nunberg 1928a: 140, 1947: 99–108, 1954: 46; Olivier 1795b: 13; Pardy 1983; Peyerimhoff 1911: 314; Pfeffer 1932b: 16, 1941c: 5, 1942b: 208, 214, 1947e: 3, 1955a: 154; Portevin 1935: 323; Postner 1974: 422 Quaschik 1953: 35; Ratzeburg 1837: 139, 162, 1839: 165, 196; Redtenbacher 1849a: 359, 1849b: 26, 1858: 831, 1874: 373; Reitter 1885b: 389, 1894a: 64, 1913a: 61–62, 1916: 287; Rhumbler 1922: 301, 1927: 314; Rupertsberger 1879: 231, 1880: 228; Saalas 1914: 82, 304–306, 1916: 110–116, 1949: 342, 371; Sahlberg 1836: 154; Schedl 1934f: 1637, 1946a: 5, 8, 1952f: 87, 1959: 99, 1980a: 14, 1981b: 67; Scherb 1971; Schimitschek 1937c: 52, 1955c: 82; Scholz 1922: 139–140; Schwarz 1894: 17; Seidlitz 1872: 393, 1891a: 561, 1891b: 607; Spessivtsev 1913a: 43, 1922a: 469, 490–491, 1923: 200–214, 1925a: 170, 1925b: 15, 1931: 45; Stark 1952: 250; Stebbing 1914: 499; Stierlin 1898: 438; Swaine 1909: 94, 1918a: 84; Thomson 1859: 147, 1865: 361, 1868: 220, 1870: 338; Titus, Meikle, & Harrison 1985: 52; Wood, S. L. 1973c: 175, 1982b: 741; Yin & Huang 1981: 561; Zetterstedt 1840: 194. (ms) Eckstein 1900c; Escherich 1932b; Hartig 1834: 110; Heinemann 1908a; Landin 1953: 24, 99; Sedlacek 1902a: 126; Seitner 1913a: 27; Swaine 1907: 191, 1912b: 141.

aphodiodes Villa 1833: 36 (*Bostrichus*). Syntypes, sex?; Europe; not located. Synonymy: Eichhoff 1878b: 73.

References: (ds) Gaubil 1849: 126; Villa & Villa 1833: 26. (tx) Comolli 1837; Villa 1833: 36.

cedris Eichhoff 1868b: 403. Syntypes, sex?; Corsica; Hamburg Museum, lost. Synonymy: Peyerimhoff 1919: 213.

References: (ce) Peyerimhoff 1934: 52; Pfeffer 1960. (hb) Peyerimhoff 1919: 252. (ds) Blanchere & Robert 1889; Calver 1884, 1893; Gemminger & Harold 1872: 2679; Hagedorn 1910d: 35; Kleine 1913b: 114, 1914a: 16, 1934a: 140; Kocher 1953: 133; Peyerimhoff 1919: 252, 1933b: 362, 1934: 52; Pfeffer 1935: 158, 1947d: 128, 1960; Puton 1869. (tx) Bertolini 1872; Eichhoff 1868b: 403, 1878b: 80; Hagedorn 1910a: 74; Peyerimhoff 1919: 252; Pfeffer

1942b: 208–209, 1955a: 152; Schedl 1934f: 1637, 1946a: 15.

atomus LeConte 1868: 152. Holotype, sex?; New York [USA]; MCZ, Cambridge. Synonymy: Schwarz 1886: 56 (possible synonymy), Wood 1973c: 175.

References: (ay) Thomas, J. B. 1957: 4. (en) Becker 1959b; Becker, Abbott, & Rick 1956: 664; Blackman 1950; Chamberlin 1924; Connola et al. 1956; Currie 1905: 82; Doane et al. 1936; Felt 1924: 272, 1926: 247–248, 272, 1930a: 247–248, 272; Hopkins 1892b, 1904a: 26; Packard 1881: 231–232, 1890: 727; Smith, J. B. 1924d: 9; Swaine 1924d: 9; Swaine & Craighead 1924: 1–27; Thomas, J. B. 1958: 394. (ce) Felt 1906: 389; Matthews 1970; Swaine 1924d: 9; Thomas, J. B. 1958: 394. (hb) Baker, W. L. 1972: 239; Blackman 1919a: 89, 1950; Chamberlin 1939: 119; Chittenden 1890; Doane et al. 1936; Essig 1942: 604; Felt 1906: 359–360, 1926: 247–248, 272, 1930a: 247–248, 272; Hopkins 1904a: 26; Packard 1890: 727; Pierce, W. D. 1907: 294; Swaine 1918a: 54, 1924d: 9. (ds) Anonymous 1926c: 515; Beaulne 1956; Blackman 1950; Bright 1971a: 126; Chamberlin 1925, 1939: 119; Chittenden 1890; Currie 1905; Dodge 1938; Felt 1926: 247–248, 272, 1930a: 247–248, 272; Gemminger & Harold 1872: 2679; Hagedorn 1910d: 35; Hamilton 1889: 159, 1891: 132; Henshaw 1882: 269, 1885: 149; Johnson 1901b: 93; Kleine 1913b: 114, 1914b: 409, 1934a: 139; Leng 1920: 337; Leonard 1928: 515; Proctor 1946: 206; Provancher 1877: 565; Schwarz 1886: 56; Smith, J. B. 1900: 365; Swaine 1909: 94. (tx) Blandford 1898c: 6; Chamberlin 1939: 119; Dodge 1938: 23; Eichhoff 1878b: 75; Essig 1942: 604; Hagedorn 1910a: 74; Hamilton 1891: 132; LeConte 1868: 152, 1876: 387; Pardy 1974, 1977: 13; Provancher 1877: 565; Schwarz 1886: 56, 1894: 17; Swaine 1909: 94, 1918a: 7, 54; Thomas, J. B. 1957: 4; Wood, S. L. 1973c: 175.

parallelocollis Eichhoff 1878b: 73. Syntypes, sex?; Europe; Hamburg Museum, lost. Synonymy: Schedl 1946a: 7.

References: (hb) Dombrowsky 1887. (ds) Arnoldi et al. 1955: 685; Buresh & Lazarov 1956; Horion 1935; Pfeffer 1936: 90, 1947d: 128; Reitter 1916: 350; Schaufuss 1915: 1230; Schilsky 1909: 188; Stein & Weise 1877: 164. (tx) Dombrowsky 1887; Eggers 1914: 296–297, 1922d: 118, 1923b, 1940g: 37; Eichhoff 1878b: 73–74; Pfeffer 1942b: 208, 216; Reitter 1885: 389, 1894: 64, 1913a: 61, 1916: 350; Schedl 1934f: 1637, 1946a: 7.

gammersdorferi Reitter 1885b: 389. Syntypes, sex?; Euboea Island, Greece; NHMB, Budapest. Synonymy: Eggers 1922d: 118.

References: (ce) Kleine 1908c: 185. (ds)

- Arnoldi et al. 1955: 685; Hagedorn 1910d: 36; Heyden, Reitter, & Weise 1891: 670, 1906: 710; Kleine 1913b: 114, 1934a: 140; Ortzen 1886: 279; Tredl 1907: 12. **(tx)** Eggers 1914: 296–297, 1922d: 118, 1940g: 37; Fairall 1889; Hagedorn 1910a: 74; Reitter 1885b: 389–390, 1894a: 64, 1913a: 61–62; Schedl 1934f: 1637, 1946a: 7.
- crebellus* Reitter 1894a: 64. Syntypes, sex?; Ragusa, Dalmatia; NIIMB, Budapest. Synonymy: Schedl 1946a: 5.
- Notes: (1) Balachowsky 1949a: 5 (treats it as a good species).
- References: **(cn)** Joly 1976; Wachtl 1901: 381. **(cc)** Halperin & Holzschuh 1984: 24; Kleine 1905c: 185; Novak, P. 1952: 414. **(hb)** Eggers 1906; Halperin & Holzschuh 1984: 24; Joly 1976; Peyerimhoff 1919: 253; Stark 1952: 251; Wachtl 1901: 381. **(ds)** Bickhardt 1916; Binaghi 1967; Eggers 1906; Ganglbauer 1904; Hagedorn 1910d: 36; Halperin & Holzschuh 1984: 24; Heyden, Reitter, & Weise 1906: 710; Joly 1976; Kleine 1913b: 114, 1934a: 140; Langhoffer 1915c: 157; Novak, P. 1952: 414, 1964; Peyerimhoff 1919: 253, 1933b: 367; Pfeffer 1947d: 127, 1984: 277; Pinheiro 1965: 359–364; Pittioni 1943: 176; Reitter 1894a: 64; Sahlberg 1903b: 63; Sainte-Claire 1909: 146, 1914: 471; Sainte-Claire & Mequignon 1938: 445; Schaufuss 1915: 1230; Stark 1952: 251; Supatashvili, Shalibashvili, & Supatashvili 1972; Tredl 1907: 12. **(tx)** Balachowsky 1949a: 162; Hagedorn 1910a: 74; Joly 1976; Pfeffer 1942b: 208, 214, 1955a: 152; Reitter 1894a: 64, 1913a: 62; Schedl 1934f: 1637, 1946a: 5, 7, 1979c: 68; Stark 1952: 251.
- minimus* Stebbing 1903a: 252 (*Polygraphus*). Syntypes, sex?; India: N.W. Himalayas: Jamsar Forest, Tehri-Gerhwal Forest; not found at FRI, Dehra Dun. Synonymy: Wood 1989: 172. Notes: (1) The FRI, Dehra Dun, collection in 1981 contained numerous specimens under the name *minimus*, but no types; it is presumed that Beeson obtained the identification directly from Stebbing or from a series not yet found. References: **(cn)** Stebbing 1903a: 252. **(hb)** Stebbing 1903a: 252; Strohmeier 1910a: 223. **(ds)** Beeson 1961: 286; Bhasin, Roonwal, & Singh 1958; Hagedorn 1910d: 38; Kleime 1913b: 116, 1914b: 268, 276, 1934a: 140; Stebbing 1903a: 252. **(tx)** Fabricius 1801: 395; Hagedorn 1910a: 77; Stebbing 1903a: 252.
- maulei* Roubal 1910: 203. Syntypes 6, sex?; Lithuania; 2 syntypes in Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1946a: 7. References: **(hb)** Karpinski & Strawinski 1948: 155; Stark 1952: 251. **(ds)** Borchert 1951; Hansen, V. 1939; Hellen 1947; Horion 1935; Kangas 1945; Karpinski 1948a: 173; Karpinski & Strawinski 1948: 155; Keler 1925b: 271; Kleine 1913b: 114, 1934a: 140; Lomnicki 1913b: 148; Nunnberg 1928b: 88, 104; Palm 1946: 122; Reitter 1916: 350; Roubal 1910: 203; Schaufuss 1915: 1230; Stark 1926b: 103, 1952: 251; Webber 1938: 338. **(tx)** Balachowsky 1949a: 162; Eggers 1922c: 15–16, 1932c: 81; Karpinski & Strawinski 1948: 158; Pfeffer 1942b: 208–209, 214, 1955a: 152; Reitter 1913a: 62, 1916: 350; Roubal 1910: 203; Schedl 1934f: 1637, 1946a: 7, 1979c: 150; Scholz 1922: 139–140; Sokanovskii 1958: 38; Spessivtsev 1922a: 469, 491, 1931: 46; Stark 1952: 251.
- danicus* Eggers 1932c: 80. Holotype ♂; Insel Seeland, Denmark; USNM, Washington. Synonymy: Schedl 1946a: 7. References: **(ds)** Hansen, V. 1939; Hellen 1947; Kleine 1934a: 140. **(tx)** Anderson, W. H. & Anderson 1971: 11; Eggers 1932c: 80; Pfeffer 1942b: 208, 215; Schedl 1946a: 5, 7, 1979c: 75.
- cylindricollis* Eggers 1940g: 37. Holotype ♀; Lastua, Dalmatia; Eggers Collection but not listed by Anderson & Anderson 1971 or Schedl 1979c, 2 cotypes in Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1946a: 7. References: **(cn)** Schimitschek 1944: 170. **(cc)** Galoux 1947b; Schimitschek 1941a: 305. **(hb)** Schimitschek 1944: 170. **(tx)** Balachowsky 1949a: 162; Eggers 1940g: 36–40; Pfeffer 1942b: 208, 1955a: 152; Schedl 1946a: 5, 7, 1979c: 73.
- tuberosus* Niisima 1909: 139. Syntypes, sex?; Prov. Tesnio Onpuunsi, Tomakona; Berg Mackariunpuri, Prov. Iburi; Nobuchi Collection, Ibaraki. Figures: Nakane et al. 1963: pl. 191, Nobuchi 1966d: pl. 2. Distribution: Asia (Japan/Sakhalin Island, Siberia in E USSR). Hosts: *Picca ajanensis*, *P. jezoensis*, *P. koraiensis*, *P. glehnii*, *Pinus pumila*. References: **(cn)** Inouye 1955; Inouye & Yamaguchi 1955a: 235; Kurenzov 1935c: 188. **(cc)** Inouye 1954; Inouye & Yamaguchi 1955a: 235; Inouye et al. 1955: 61; Kurenzov 1934a: 57; Nishiguchi 1960c. **(hb)** Inouye 1954: 170; Inouye et al. 1955: 61; Kurenzov 1935a: 19, 30, 1945b: 110, 1950d: 205; Stark 1952: 246. **(ds)** Kleine 1913b: 114, 1914b: 256, 1934a: 140; Kono 1938b: 64–65; Kono & Tamanuki 1939: 88; Kurenzov 1934a: 57, 1935a: 19, 30, 1935c: 188, 1936a: 109, 1936b: 351, 1963b: 115, 1965; Murayama 1948: 2, 1949a: 12, 1951c: 4, 1953a: 12, 1954b: 199, 1955: 104; Nakane et al. 1963: 382; Nobuchi 1967: 20, 1966d: 18; Pfeffer 1935: 159; Stark 1952: 246. **(tx)** Hagedorn 1910a: 74; Krivolutskaya 1958: 133; Kurenzov 1941a: 139, 1948b: 110; Murayama 1953a: 12, 1954b: 199, 1955: 104; Nakane et al. 1963: 382, pl. 191; Niisima 1909: 139, 1910a: 1, 1929: 376–381; Nobuchi 1966d: 18, pl. 2; Pfeffer 1942b: 208, 212, 1955a: 153; Schedl 1934f: 1637, 1946a: 5, 14; Stark 1952: 246.

Genus *Cisurgus* Reitter

CISURGUS REITTER 1894a: 59, 65. Type-species: *Cisurgus filum* Reitter, monobasic.

Keys: Schedl 1959: 28.

References: **(hb)** Wood, S. L. 1986a: 76. **(ds)** Hagedorn 1910d: 37; Wood, S. L. 1986a: 76. **(tx)** Eggers 1910: 559; Fuchs 1912: 9; Hagedorn 1908: 371, 1909: 138, 1910a: 74–75; Hopkins 1914: 118, 133, 1915c: 226; Peyerimhoff 1923: 56–57; Pfeffer 1983; Reitter 1894a: 59, 65–66, 1906: 710, 1913a: 64–65, 1916: 286; Schedl 1934f: 1638, 1959e: 27, 1961m: 647; Schedl, Lindberg, & Lindberg 1959: 8; Sokanovskii 1954: 16; Spessivtsev 1931: 87; Wood, S. L. 1986a: 76.

ferulae Pfeffer 1983: 293. Syntypes, sex?; Uzbekistan; not located.

Distribution: Asia (W USSR).

Hosts: *Ferula kuhistanica*, *F. sp.*

References: **(ds)** Kadyrov 1989. **(tx)** Pfeffer 1983: 293, 295.

filum (Reitter) 1889b: 126 (*Crypturgus*). Syntypes, sex?; Utsch-adschi, zwischen Merv und dem Amu-darja; NHMB, Budapest.

Distribution: Asia (W USSR).

Notes: (1) Reitter 1894: 59 (to *Cisurgus*).

References: **(hb)** Budkov 1897; Stark 1952: 253. **(ds)** Budkov 1897; Hagedorn 1910d: 37; Heyden 1898: 77; Kadyrov 1989; Kleine 1913b: 115, 1914b: 246; Reitter 1894a: 66; Schaufuss 1915: 1230; Schedl 1959e: 29; Stark 1952: 253. **(tx)** Eggers 1910f: 559–560; Hagedorn 1910a: 75; Hopkins 1914: 118; Pfeffer 1983: 295; Reitter 1889b: 126, 1894a: 59, 65–66, 1906a: 31, 1913a: 65; Schedl 1934f: 1638, 1959e: 29; Semenov 1903: 80; Stark 1952: 253.

maurus Eggers 1910f: 559. Syntypes, sex?; Tunesia (Le Kef); Normand Collection, and Eggers Collection, 2 in NHMW, Wien.

Distribution: Africa (Algeria/ Tunisia), Asia (Israel), Europe (Yugoslavia).

Hosts: *Lantana camara*, *Tamarix aphylla*.

References: **(hb)** Normand 1937: 268. **(ds)** Kleine 1913b: 115, 1914a: 16; Schedl 1959e: 29, 1978e: 20. **(tx)** Eggers 1910f: 559–560; Hagedorn 1910a: 75; Michalski 1969b: 567; Pfeffer 1983: 295; Reitter 1913a: 64–65; Schedl 1934f: 1638, 1959e: 29–30, 1979e: 150.

karamani Reitter 1913a: 64. Syntypes, sex?; Dalmatien; Castella; NHMB, Budapest. Synonymy: Schedl 1959e: 30.

References: **(cc)** Novak, P. 1952: 414. **(ds)** Langhoffer 1915c: 157; Novak, P. 1952: 414; Schaufuss 1915: 1230. **(tx)** Pfeffer 1983: 295; Reitter 1913a: 64; Schedl 1934f: 1638, 1959e: 30–31.

occidentalis Peyerimhoff 1923a: 53. Syntypes, sex?; Maroc Meridional; Vallee du Sous; MNHN, Paris.

Distribution: Africa (Ghana/ Morocco).

Hosts: *Euphorbia cactiformes* (*E. beaunierana*), *E. drupifera*, *E. echinus*.

References: **(hb)** Peyerimhoff 1926: 386. **(ds)** Kleine 1934a: 140; Peyerimhoff 1923a, 1925: 13, 1926: 386; Schedl 1959e: 33, 1961k: 647, 1964f. **(tx)** Peyerimhoff 1923a: 53, 1925: 8, 13; Pfeffer 1983: 295; Schedl 1934f: 1638, 1951k: 647, 1959e: 33.

ragusae Reitter 1906a: 241. Syntypes, sex?; Messina, Italy; NHMB, Budapest.

Distribution: Africa (Tunisia), Europe (Italy/ Sardinia/ Sicily).

References: **(cn)** Grandi 1951: 913. **(cc)** Kleine 1908c: 185. **(hb)** Grandi 1951: 913. **(ds)** Hagedorn 1910d: 37; Heyden, Reitter, & Weise 1906: 710; Kleine 1913b: 115, 1914a: 15; Krausse 1910: 771, 1911: 67; Ragusa 1924: 116; Schaufuss 1915: 1230; Schedl 1959e: 29; Tredl 1907: 12. **(tx)** Eggers 1910e: 37, 1910f: 559–560, 1911a: 123, 1914; Hagedorn 1910a: 75; Reitter 1906a: 31, 241, 1913a: 64; Schedl 1934f: 1638, 1959e: 28–29.

resiniferae Peyerimhoff 1925: 13. Syntypes, sex?; Morocco; MNHN, Paris.

Distribution: Africa (Algeria/ Morocco/ Tunisia).

Notes: (1) Pfeffer 1983: 296 (elevated to full species from subspecies of *occidentalis*; Schedl 1959e: 33 considered it a synonym of that species).

References: **(hb)** Peyerimhoff 1926: 386. **(ds)** Peyerimhoff 1925: 13, 1926: 386. **(tx)** Peyerimhoff 1925: 13; Pfeffer 1983: 296; Schedl 1959e: 33.

wollastoni (Eichhoff) 1878b: 77 (*Crypturgus*).

Lectotype, sex?; Canary Islands: Teneriffe (Mts. above Sta. Cruz); BMNH, London, designated by Israelson 1972: 257, automatic.

Figures: Israelson 1972: fig. 24 (male genitalia).

Distribution: Africa (Algeria/ Gomera, Gran Canaria, Tenerife in Canary Islands).

Hosts: *Euphorbia canariensis*.

References: **(ay)** Israelson 1972: 257. **(ds)** Hagedorn 1910d: 37; Kleine 1913b: 114, 1914a: 21. **(tx)** Eichhoff 1878b: 77–78; Hagedorn 1910a: 74; Pfeffer 1942b: 207–209, 213; Schedl 1934f: 1638, 1946a: 15, 1964f; Schedl, Lindberg, & Lindberg 1959: 17.

pusillus Wollaston 1860: 167 (*Aphanarthrum*).

Lectotype, sex?; Canary Islands: Teneriffe (Mts. above Sta. Cruz); BMNH, London, pre-occupied while in *Crypturgus*.

Notes: (1) Eichhoff 1878b: 77 transferred this species to *Crypturgus* where the Wollaston name became a junior homonym and was replaced. Peyerimhoff 1923: 54 (to *Cisurgus*). References: **(cn)** Souphieff & Scherbinovskaja 1937: 28. **(ds)** Aclouque 1896; Kleine 1934a: 140; Lacordaire 1866: 376; Peyerimhoff 1923a: 48; Schedl 1959e: 33, 1971d: 42; Schedl, Lindberg, & Lindberg 1959: 17; Souphieff &

Scherbinovskaja 1937: 28. (**tx**) Acloque 1896; Eichhoff 1878: 77; Kalina 1970: 121; Lacordaire 1866: 376; Peyerimhoff 1923a: 48; Schedl 1934f: 1638, 1959e: 33; Schedl, Lindberg, & Lindberg 1959: 17; Wollaston 1860b: 167, 1861b: 38, 1862b: 172, 1864: 263, 1865: 244.

hystrix Abeille de Perrin 1894: 94. Syntypes, sex?; Algeria, prope St. Charles; not located. Synonymy: Schedl 1946a: 15.

Notes: (3) The synonymy proposed by Schedl (1946a: 15) should be confirmed.

References: (**hb**) Normand 1937: 268. (**ds**) Abeille de Perrin 1894: 94; Hagedorn 1910d: 36; Kleine 1913b: 114, 1914a: 16; Reitter 1894a: 94. (**tx**) Abeille de Perrin 1894: 94; Eggers 1910f: 559–560; Hagedorn 1910a: 74; Reitter 1894a: 94, 1913a: 64; Schedl 1934f: 1638, 1946a: 15.

Tribe Xyloterini Lindemann

Xyloterioideae

References: Lindemann 1876: 165.

Xyloteri

References: LeConte 1876: 346; LeConte & Horn 1883: 516.

Xyloteridae

References: Eichhoff 1878b: 411.

Xyloterinae

References: Murayama 1930: 17, 1957b: 569–585; Nusslin 1911: 432.

Xyloterini

References: Reitter 1913a: 28; Schedl 1951b: 74; Wood, S. L. 1978a: 113, 1982b: 68, 1986a: 76; Yin, Huang, & Li 1984: 182.

Xyloterina

References: Balachowsky 1949a: 196.

Trypodendrinae

References: Tredl 1907: 18.

Trypodendrina

References: Nunberg 1954: 16.

Genus *Trypodendron* Stephens

TRYPODENDRON STEPHENS 1830: 353. Type-species: *Dermestes domesticus* Linnaeus, subsequent designation by Westwood 1838: 39, Thomson 1859: 146.

Xyloterus Erichson 1836: 60. Type-species: *Bostrichus lineatus* Olivier, subsequent designation by Thomson 1859: 146. Synonymy: Ferrari 1868: 255, Eichhoff 1878b: 412.

References: (cn) Felt 1905: 293; Hofer 1920: 1–11; Hopping & Jenkins 1933: 1–14; Snyder 1927: 1–46, (hb) Knauer 1908: 498–501; Živojinovic 1948: 65–73, (ds) Scheerpeltz & Winkler 1930: 257, (tx) Bach 1854: 138; Balachowsky 1949a: 198; Doebner 1862: 165; Eichhoff 1864, 1878b: 412; Erichson 1836: 60; Ferrari 1868: 255; Ilagedorn 1910d: 114–116; Karaman 1972: 115; Kuster 1844: 64; LeConte 1876: 357; LeConte & Horn 1883: 17–18; Munro 1926: 1–27; Niisima 1909: 163–164; Pfeffer 1989a: 129–136; Puton 1867: 631; Redtenbacher 1872: 383; Reitter 1894: 92, 1913a: 74; Saalas 1914: 73, 83–84; Schedl 1951c: 74–100, 1964k: 211; Schimitschek 1937: 50–53; Spisitssev 1922: 474–475, 1931: 88; Stark 1931: 339–433; Stebbing 1914: 602; Swaine 1909: 148, 1918: 84; Tamamki 1933: 1–54; Thomson 1857: 358, 1859: 146; Trappen 1935: 143; Tredl 1907: 19; Wood, S. L. 1957a: 344, 1966b: 20.

Keys: Wood 1957a: 345, 1982b: 747 for North America; Schedl 1951c: 86 for Europe and Asia; Murayama 1957b for Japan; Yin, Huang, & Li 1984: 182–185.

References: (ay) Atkins & Farris 1962: 30;

Browne 1961e: 49; Chapinan 1955: 3; Francke-Grosmann 1958: 139; Nobuchi 1969a: 58; Thomas, J. B. 1960. (bv) Bletchly 1961: 14; Chapman 1955: 3, 1959b: 126; Dyer 1963: 3–4; Graham 1953: 3–4, 1961: 519–520; Kinghorn 1955: 3, 1956: 3–4; Nijholt & Chapman 1964: 3–4. (cn) Binion 1962: 52; Drake 1921: 201–205; Hagle et al. 1987: 39; Johnson 1958: 508–511, 1960: 1–8; Johnson & Zingg 1969: 816–819; Judeich & Nitsche 1895: 449–451; Keen 1938: 146; McGuffin & Barker 1947: 57; Richmond 1953: 86–89; Ross 1954: 143; Swaine 1913: 87–92. (cc) Balazy 1963b; Dyer 1962: 910; Furniss, R. L. & Carolin 1977: 410; Lindquist 1970: 981. (hb) Bright & Stark 1973: 71; Browne 1961d: 50; Furniss, R. L. & Carolin 1977: 410; Prebble & Graham 1957: 92, 95–106, 111–112; Wood, S. L. 1982b: 746, 1986a: 78, (ds) Allen & Koot 1970: 12; Barbey 1901: 110; Bright & Stark 1973: 71; Chamberlin 1917: 356; Furniss, R. L. & Carolin 1977: 410; Patterson & Hatch 1945: 152; Provancher 1877: 566; Wood, S. L. 1982b: 746, 1986a: 78; Yin, Huang, & Li 1984: 182. (tx) Arnett 1960: 1044, 1968: 1044; Balachowsky 1949a: 196; Beal & Massey 1945: 59, 107; Bedel 1888b: 396, 403; Blackman 1922b: 75, 79; Bright 1976d: 117; Bright & Stark 1973: 71; Browne 1961c: 81, 1965a: 188; Chamberlin 1939: 296–302, 1958: 124; Choo 1983: 61; Choo, Woo, & Nobuchi 1988b; Dodge 1938: 13, 18, 35; Eggers 1939c: 114–123; Eichhoff 1864a: 36, 45–46, 1878b: 412, 1881a: 291; Ferrari 1868: 255; Johnson, N. E. 1958b: 236; Kostin 1973: 259; Krivolutskaia 1958: 107; Pfeffer 1989a: 53, 1989b; Schedl 1964k: 211; Stephens 1830: 353; Swaine 1909: 147, 1918a: 44, 84–86; Thomas, J. B. 1960: 107; Thomson 1859: 146; Trappen 1935: 143; Westwood 1838: 39; Wood, S. L. 1957a: 341, 345, 1961a: 46, 1966b: 20, 1982b: 746–754, 1986a: 78; Yin, Huang, & Li 1984: 182.

ashuensis (Murayama) 1950a: 51 (*Xyloterus*). Syn-types 2, ♂ ♀; Ashu, north of Kyoto City, Honshu, Japan; Murayama Collection in USNM, Washington. Distribution: Asia (Japan).

References: (ds) Murayama 1953a: 12, 1954b: 167, 1957b: 570, (tx) Murayama 1950a: 51, 1953a: 12, 1954b: 167, 1957b: 570.

betulae Swaine 1911a: 216. Lectotype ♂; Ste. Anne de Bellevue, Quebec [Canada]; CNCI, Ottawa, designated by Bright 1967b: 679.

Figures: Bright 1976d: 210, Wood 1957a: 339–341. Distribution: North America (Alberta, British Columbia, Manitoba, New Brunswick, Northwest Territories, Nova Scotia, Ontario, Quebec in Canada/ Idaho, Maine, Massachusetts, Minnesota, Montana, New Hampshire, New Jersey, New York, South Dakota, Wisconsin in USA).

Hosts: *Betula lenta*, *B. papyrifera*.

References: (ay) Abrahamson, Chu, & Norris 1967: 1107–1110; Thomas, J. B. 1960, 1967. (bv)

- Kirkendall 1984: 241. (**cn**) Blackman 1950; Chamberlin 1924; Doane et al. 1936; Drake 1921: 201, 205; Holsten, Werner, & Laurent 1980; Hopkins 1904a: 16; Leach 1940b: 63; Leach et al. 1940: 227–236; Lindquist, O. H. & Syme 1981: 110; Nash et al. 1951: 46; Swaine 1918a: 84; Wong, H. R. & Melvin 1973. (**cc**) Abrahamson, Chu, & Norris 1967; Leach 1940b: 63; Leach et al. 1940: 227; Roeper & French 1981; Slaby 1947: 377; Stienhaus 1946: 405; Thompson, W. R. & Simmonds 1964: 39, 1965: 125; Verrall 1943: 143; Webb 1945: 65. (**hb**) Baker, W. L. 1972: 268; Blackman 1950; Chamberlin 1939: 299; Doane et al. 1936; Drake 1921; Everts 1903: 770; Gast et al. 1989: 383; Holsten, Werner, & Laurent 1980; Hopkins 1904a: 16; Rose, A. H. & Lindquist 1982b: 101; Swaine 1918a: 84; Wong & Melvin 1973. (**ds**) Abrahamson, Chu, & Norris 1967; Anonymous 1926c: 518; Baker, W. L. 1972: 268; Beaulne 1956; Blackman 1950; Bright 1976d: 118; Chamberlin 1939: 299; Dodge 1938; Furniss, R. L. & Carolin 1977: 412; Gast et al. 1989: 383; Kleine 1913b: 169, 1934a: 178; Leng 1920: 339; Leonard 1928: 518; Lindquist, O. H. & Syme 1981: 106; Murayama 1957b: 584; Patterson & Hatch 1945: 152; Pfeffer 1989b: 132; Still, Tidsbury, & Melvin 1974b; Wood, S. L. 1982b: 750. (**tx**) Benoit 1985: 272; Bright 1967b: 679, 1976d: 118, 210; Chamberlin 1939: 299; Dodge 1938: 14, 35–36; Everts 1903: 770; Hoebeke 1978; Lindquist, O. H. & Syme 1981: 110; Murayama 1957b: 584; de Ruette 1970: 411; Swaine 1911a: 216, 1918a: 84–85; Thomas, J. B. 1960: 410; Titus, Meikle, & Harrison 1985: 125; Wood, S. L. 1957a: 345, 347, 1982b: 750.
- domesticum** (Linnaeus) 1758: 356 (*Dermestes*).
 Syntypes, sex?: Europa; not located.
 Figures: Bevan 1987: 116, Grune 1979: 160, Speight 1981: 145.
 Distribution: Asia (Turkey), Enrope (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxembourg/ Netherlands/ Norway/ Poland/ Romania/ Sardinia/ Scotland/ Sicily/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).
 Hosts: *Acer* spp., *Alnus glutinosa*, *Betula* sp., *Carpinus betulus*, *Fagus* spp., *Fraxinus* spp., *Juglans regia*, *Morus alba*, *Prunus* sp., *Quercus* spp., *Robinia pseudoacacia*, *Sorbus* spp.
 Notes: (3) Endrodi 1957a: 309 (named aberrations *apicalis*, *toracalis*, no status).
 References: (**ay**) Escherich 1923b: 488, 627; Fisher 1954; Francke-Grosmann 1956b, 1957, 1959; Hadorn 1933; Imhoff 1856: 228; Kerck 1972a, 1977; Numberg 1951: 263; Schneider 1976. (**bv**) Francke 1973; Francke & Heemann 1974; Francke & Heyns 1974b; Grune 1979: 161; Inscow 1982; Inscow & Beroza 1976: 168; Kerck 1972a, 1972b, 1977, 1978; Klassen, Ridgway, & Inscow 1982; Klimetzek, Vite, & Mori 1980; Losekrug 1988; Magma, Casper, & Severin 1982; McLean & Borden 1977: 684; Paiva 1982a, 1982b; Paiva, Kiesel, & Vite 1983; Payne et al. 1983; Schurig et al. 1982; Vite & Pitman 1967: 683–701; Weber, R. & Schurig 1984; Weber, T. 1966. (**cn**) Anonymous 1979; Bakshi 1950: 111–120; Barbey 1925: 554; Becker, G. 1950; Bejer-Petersen 1959a; Blandford 1890, 1893c; Chararas 1957e; Chorbazdzhevo 1939; Cotes 1893b; Eckstein 1926: 579, 1930b; Eichhorn & Graf 1974; Escherich 1923b: 488, 627, 1929; Esterberg 1959; Falck 1916: 167; Fisher 1952a; Gabler 1955; Georgescu et al. 1957: 357, 403, 426; Georgijevic 1959: 594; Goosen 1961; Grandi 1951; Hartig 1872a, 1872b, 1877: 195; Henschel 1895a: 194; Herlein 1878; Hess 1900: 42, 1907: 259; Hess & Beck 1914: 284, 1927: 343; Houbá 1913: 253; Jacquist 1951a: 1–4; Judeich & Nitsche 1895: 539; Kamp 1954: 3; Kerck 1972b; Kholodkovskii 1912: 322; Kleine 1932a: 309; König, E. 1957: 104; Kovacevic 1924: 21–22, 1957: 69; Losekrug 1985; MacDougall 1925: 1–37, 1929: 1–41; Müller 1912a: 187; Niemeyer 1982; Nosek 1951: 106, 1952b: 96; Nusslin 1913: 204; Paiva 1982b; Palm 1951: 229; Puecher Passavalli 1931b: 657; Reichling 1920: 15–17; Reissig 1949: 131; Rhumbler 1922: 304, 330, 1927: 318; Saalas 1949: 329, 343, 378; Schimitschek 1935b: 147, 1937: 53, 1955a: 136, 1955c: 83; Schindler 1969b: 136; Schmidt 1881: 89; Schönherr & Wellenstein 1967; Schuster 1918: 99; Schwarz 1938a: 95; Schwerdtfeger 1944a: 184, 1954: 280, 1957a: 190; Shaw, M. W. 1960: 112; Speight 1981; Stark 1952: 363; Taraschkewitsch 1934: 357; Tomic 1957: 207–210; Wachtl 1901: 382; Weber, T. 1966: 158–165; Wolff & Krause 1982: 89. (**cc**) Adeli 1964; Apel 1983; Baert & Maelfait 1977; Bakshi 1950; Balazy & Michalski 1964b; Batra 1963b: 216; Beauverie 1910b; Boucek 1957b: 79; Brummanis 1940; Butin & Zimmermann 1972; Eichhorn & Graf 1974; Fisher 1954; Francke-Grosmann 1956b, 1957, 1959; Führer 1975; Graham 1969: 875; Györfi 1941b; Hagedorn 1907c; Heliovaara & Lilja 1989; Heqvist 1963: 154; Jamnicky 1957c, 1958: 689; Janka 1908; Kangas 1942b; Kleine 1908c: 220, 1909a: 49, 77; Knaier 1908: 500; Krivosheina 1974; Lundberg 1984; Michalski & Ratajczak 1989; Neger 1908b: 281, 1908c: 277, 1908d: 322, 1909a: 374, 1911a: 50; Nikitsky 1978; Nosek 1951: 106, 1952b: 96; Novak, P. 1952: 416; Nuorteva 1956a: 16, 1961c: 119; Nusslin 1927: 318; Perris 1856a: 244; Pfeffer 1923a: 331, 1928b: 2, 1932a: 19, 1943b: 181; Purrini & Orimeres 1981; Ratzeburg 1869a: 175; Ronbal 1934b: 178; Ruschka 1923: 198–201; Saalas 1930: 118, 1949: 329, 343, 378; Scheidter 1936: 236; Schimitschek 1935b: 534, 1955a: 136; Schneider 1976; Schuster 1918: 99; Schwerdtfeger 1944a: 184, 1957a: 190; Sedlaczek 1915a: 45, 1935a: 162; Shaw, M. W. 1960; Slaby

- 1947: 375; Speight 1981; Szczepanski 1960a: 407; Thompson, W. R. 1943: 117; Thomsen, Buchwald, & Hamberg 1949: 103, 232–323; Vite 1952a: 103; Zimmermann, G. 1973. (**hb**) Adeli 1964; Altum 1881c: 309; Apel 1983; Bach 1864; Baeta Neves 1943a; Barbey 1901: 28, 110, 1925: 554; Bargmann 1906; Baudys 1929; Becker, G. 1950; Beffa 1949, 1961; Beling 1873, 1887; Blandford 1890; Boas 1923: 363; Brandt 1948; Budge 1949; Bukowsky 1930; Cecconi 1903, 1924; Chararas 1957e; Chorbadzhievo 1929; Cotes 1893a, 1893b; Dallimore & Munro 1922; Dombrowsky 1887; Eckstein 1897, 1926: 579, 1928; Eggers 1917; Eichhoff 1881a: 54, 291; Eichhorn & Graf 1974; Escherich 1923b: 488, 627; Everts 1902; Fairmaire 1864: 164; Falck 1916: 167; Fischer 1952a; Fisher 1936a, 1954; Fuchs 1904a; Furst 1888: 13; Gabler 1955; Gillanders 1908; Girard 1873; Grandi 1951; Groschke 1953c; Györfi 1936: 527, 1957; Hadorn 1933; Hagedorn 1903a; Hartig 1872a, 1872b, 1877: 195; Henschel 1876a: 216, 220, 240, 1895a: 194; Hergula 1939: 309; Hess 1900: 42, 1907: 259; Hess & Beck 1914: 284, 1927: 343; Holmgren 1867: 128; Jacquiot 1951a: 1; Joly 1950; Karpinski 1933b: 29; Karpinski & Strawinski 1948: 155; Karsch 1883: 142; Kholodkovskii 1912: 322; Kleine 1932a: 309; Knotek 1894a: 559; König, E. 1957: 104; Lengerken 1954: 315; Liese 1950: 142; Loos 1913: 413; Lunardoni & Leonardi 1889: 489; Magema, Gasper, & Severin 1982; Matouschek 1917: 214; Munro 1926: 59; Nordlinger 1856: 31; Nunberg 1929: 107; Nusslin 1898: 283, 1906b: 14, 1913: 204, 1927: 318; Paiva, Kiesel, & Vite 1983; Palm 1951: 229; Perris 1856a: 244; Pfeffer 1942a: 6; Postner 1974: 471; Ratzeburg 1837: 164, 1839: 165, 201; Rhumbler 1922: 304, 330, 1927: 318; Rupertsberger 1880: 232; Saalas 1913a: 69, 84, 1949: 329, 343, 378; Scheidter 1936: 236; Schimitschek 1955a: 136; Schmidt 1881: 89; Schneider-Orelli 1947b: 157; Schwerdtfeger 1944a: 184, 1957a: 190, 1981: 196; Sedlaczek 1935a: 162; Shaw, M. W. 1960; Simmel 1919a: 34–36; Speight 1981; Spessivtsev 1913a: 95; Strohmeier 1907b: 173–174; Thomsen 1948 (1950): 804; Tragardh 1914: 105, 1939b: 158, 233; Tredl 1908b: 138, 1915a: 152, 1915b: 169; Tschorbadzhiev 1929: 166; Vite 1952a: 103; Wachtl 1876a: 452, 1901: 382; Wichmann 1909a: 149, 1910b: 209; Wolff & Krausse 1922: 89. (**ds**) Aclouque 1896; Adeli 1964; Ammann & Knabl 1923; Andersch 1851; Angus 1965a: 7; Anonymous 1979; Barthe 1896; Bartindale & Bartindale 1948: 138; Ban 1888; Bedel 1888b: 404, 420; Beffa 1949; Beijer-Petersen & Jorum 1977: 22; Benick 1921; Bielz 1851, 1887; Blanchère & Robert 1889; Boas 1923: 363; Borchert 1951; Brakman 1966b: 205; Branesik 1871, 1906; Bukowsky 1930; Buresh & Lazarov 1956; Butovitsch & Heqvist 1947; Calwer 1884, 1893; Cecconi 1903; Chapuis & Candeze 1853; Chorbadzhievo 1924d, 1929; Chrystal 1937; Cotes 1893a, 1893b; Crotch 1863; Dallimore & Munro 1922: 189–193; Davidson 1961: 20; Dejean 1821, 1825, 1837; Duftschmidt 1825; Eckstein 1923; Eder 1934; Eggers 1904; Endrodi 1958b; Ericson & Sandin 1893; Ermisch 1953; Escherich 1923b: 488, 627, 1929, 1932b; Esterberg 1959; Favre 1890; Fisher 1936a; Fleischer 1888; Fleischer et al. 1921a; Forster 1849: 439; Fowler 1891; Fricken 1889: 357; Fuchs 1904a, 1905a; Gabler 1949b; Gaubil 1849: 127; Gemminger & Harold 1872: 2682; Georgijevic 1959: 594; Gobang 1855: 745; Goeze 1777: 130; Gozis 1875: 80; Gredler 1866: 372; Grill 1895: 309; Grune 1979: 161; Gyllenhal 1827: 624; Györfi 1936: 527, 1941b; Hagedorn 1903a, 1910d: 114; Hansen, V. 1939, 1956, 1964: 461; Heinemann 1908a; Heller 1947; Helliesen 1916: 84; Heyden 1876: 299, 1879: 140; Heyden, Reitter, & Weise 1883: 182, 1891: 674, 1906: 713; Hickin 1963; Holmgren 1867: 127; Holzel 1946: 81; Horion 1949, 1951, 1954a: 105; Houins 1939: 401–409; Ihssen 1939: 336; Jacenztkovsky 1912: 292; Janetschek 1957: 262; Johnson, W. 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& Leder 1977: 55; Schwerdtfeger 1981: 196; Seidlitz 1872: 393, 1891a: 568, 1891b: 614; Sharp & Fowler 1893: 34; Shaw 1960: Sick 1939: 110; Siebke 1875: 283; Solla 1893: 217; Stark 1926j: 126, 1927b: 88, 1952: 363; Stein 1868: 114; Stein & Weise 1877: 165; Stephens 1829a: 144, 1830: 354, 1839: 206; Stierlin 1898: 448; Stierlin & Gautard 1871: 292, 1906: 206; Strand 1946: 601; Sturm 1843: 230; Thomson 1859: 146, 1865: 358, 1868: 219; Tragardh 1914: 105, 1939b: 158, 233; Tredl 1907: 19, 1908b: 138, 1915: 214; Tschorbadjiev 1929: 166; Ulanowski 1884: 7; Villa & Villa 1833: 26; Vite 1953: 41; Wachtl 1870: 259, 1876a: 452; Wanka 1908: 231; Westhoff 1882: 240; Wichmann 1910b: 209, 1927a: 68; Winter, T. G. 1983: 25; Zetterstedt 1840: 194; Zoufal 1920: 21. (tx) Acloque 1896; Allen 1965a; Apel 1983; Bach 1854, 1864; Balachowsky 1949a: 198; Barbey 1901: 28, 110; Bedel 1885b: 404, 420; Beffa 1949, 1961; Bertolini 1872; Blandford 1890; Boas 1923: 363; Brancsik 1871; Castelnau 1840; Chapuis & Candeze 1853; Chorbadzhievo 1924d; Curtis 1840; Dejean 1821, 1825; Dombrowsky 1887; Duffy 1953; Duftschmidt 1825; Eggers 1926b, 1929e: 41; Eichhoff 1864a: 382, 1864b: 37, 1868d: 421, 1878b: 412, 1881a: 54, 291, 1883a: 116, 143; Endrodi 1957a: 309, 1957b; Erichson 1836: 60; Escherich 1923b: 488, 627; Fankhauser 1912a; Ferrant 1911; Ferrari 1867a: 9, 1867b: 113; Fleischer 1927; Formanek 1907: 54; Fricken 1889: 357; Gabler 1949b, 1955; Gillanders 1908; Girard 1873; Goeze 1777: 130; Grune 1979: 160–161; Gyllenhal 1813: 365, 1827: 624; Hagedorn 1910a: 158; Hansen, V. 1956, 1964: 461; Henry 1892: 14; Henschel 1876a: 216, 220, 240, 1895a: 194; Hopkins 1914: 131; Iablokoff-Khnzorian 1961: 89; Judeich & Nitsche 1895: 539; Kalina 1970: 130; Karpinski & Stravinski 1948: 155; Knotek 1892a: 38; Kuhnt 1913: 1061; Lacordaire 1866: 377; LeConte 1876: 356; Letzner 1891: 378; Leunis 1886: 182; Lindemann 1875c: 372; Linnaeus 1758: 355–356; Lovendal 1889b: 79, 1890c: 211, 1898: 200; Lucas 1920: 675; Lucht 1987: 280; Lunardoni & Leonardi 1889: 489; Muller 1776: 56; Murayama 1957b: 585; Negru 1966b: 40; Nordlinger 1848: 245, 1856: 31; Numborg 1951: 263, 1954: 44; Pfeffer 1932b: 19, 1942a: 6, 1955a: 165; Portevin 1935: 326; Postner 1974: 471; Puton 1867: 631; Quaschik 1953: 35; Ratzeburg 1837: 164, 1839: 165, 201; Redtenbacher 1849a: 359, 1849b: 26, 1858: 830, 1874: 383; Reitter 1894a: 92, 1913a: 74, 1916: 291; Rhumbler 1913, 1914, 1922: 304, 330, 1927: 318; Rupertsberger 1880: 232; Saalas 1913a: 69, 84, 1914: 84, 1949: 329, 343, 378; Sahlberg 1836: 151; Schedl 1934f: 1644, 1951c: 86–88, 1952f: 88, 1980a: 17; Schimitschek 1937c: 53, 1955c: 83; Seidlitz 1872: 393, 1891a: 568, 1891b: 614; Speight 1981: 145; Spessivtsev 1913a: 95, 1922a: 475, 1925a: 177, 1931: 54–55; Stark 1952: 363;

Stephens 1829a: 144, 206, 1829b: 12, 1830: 353–354; Stierlin 1898: 448; Thomson 1859: 146, 1865: 358, 1868: 219; Westwood 1840: 39; Wood, S. L. 1957a: 337, 344; Zetterstedt 1840: 194. (ms) Eichhoff 1868d: 421; Escherich 1932b; Heinemann 1908a; Lucas 1920: 675; Matouschek 1917: 214; Schurig et al. 1982; Schwappach 1924: 59; Weber, R. & Schurig 1984.

limbatus Fabricius 1787: 33 (*Apatе*). Holotype ♂; Germania; UZMC, Copenhagen. Synonymy: Fabricius 1792: 363.

References: (hb) Boas 1923: 365. (ds) Beck 1817; Boas 1923: 365; Dejean 1821, 1825, 1837; Gyllenhal 1827: 419; Illiger 1820: 367, 1805: 129; Stephens 1829a: 144; Sturm 1826: 102; Villa & Villa 1833: 26. (tx) Balachowsky 1949a: 198; Dejean 1821, 1825; Eggers 1929e; Eichhoff 1876a: 378; Fabricius 1787: 33, 1792: 363, 1801: 382; Gmelin 1790: 1603; Gyllenhal 1827: 419; Herbst 1793: 105; Illiger 1807: 321; Panzer 1795a: 284; Stephens 1829a: 144. (ms) Roeschke 1912: 43.

***dorjitenzingi* Schmutzenhofer** 1988: 487. Holotype ♂; Bhutan-West, Chelaila, 3000 m; NHMW, Wien.

Figures: Schmutzenhofer 1988: 487 (male genitalia).

Distribution: Asia (Bhutan).

Hosts: *Larix griffithiana*, *Picea spinulosa*, *Pinus wallichiana*.

Notes: This species is allied to *betulae* and probably breeds in a non-coniferous host.

References: (tx) Schmutzenhofer 1988: 487.

***gaimaensis* (Murayama)** 1937: 369 (*Xyloterus*). Holotype, sex?; Horyuri, Korea; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan/ Korea).

Hosts: *Larix olgensis coreana*, *Alnus* sp.

References: (ds) Cho 1957; Choo 1983: 61; Choo & Woo 1985: 164; Ko 1969: 288; Murayama 1937a: 2, 1937b: 369, 1945: 6; 1957b: 570. (tx) Choo 1983: 61; Murayama 1937b: 369–370, 1950: 52, 1957b: 570; Schedl 1951c: 94.

* ***impressum* Scudder** 1876: 83. Holotype, sex?; Green River Beds in western Wyoming [USA]; not located.

Distribution: North America (fossil in Eocene deposits).

Notes: (1) Hopkins 1900a: 66 (not Scolytidae, perhaps Anobiidae).

References: (ds) Hagedorn 1910d: 114; Kleine 1913b: 169; Murayama 1957b: 585; Scudder 1876: 83, 1890: 470, 1891: 515, 1893: 157; Wickham 1920: 363. (tx) Hagedorn 1910a: 155; Keler 1928: 10; Murayama 1957b: 585; Scudder 1876: 83, 1890: 470.

***laeve* Eggers** 1939c: 122. Syntypes 5 ♂; Japan: Karafuto; Eggers Collection, 2 syntypes in NHMW, Wien.

Figures: Strand 1946: 169 (male genitalia).

Distribution: Asia (Japan/ E USSR), Europe (Norway/ Poland/ Sweden/ W USSR).

Hosts: *Picea excelsa*.

References: (tx) Eggers 1939c: 122; Schedl 1951c: 87, 1979c: 135.

piceum Strand 1946: 172. Syntypes, sex[?]; Norway: Roa, in the immediate vicinity of Oslo; not located. Synonymy: Wood 1983 (private notes based on two specimens in Schedl Collection in NHMW, Wien, compared to the Eggers syntypes of *laeve*).

References: (ds) Heller 1947; Klefbeck & Sjöberg 1960: 230; Lundberg 1958: 232, 1974: 92. (tx) Schedl 1962p: 206; Strand 1946: 172.

***lineatum* (Olivier)** 1795a: 18 (*Bostrichus*). Syntypes, sex[?]; Northern Europe; MNHN, Paris (?). Figures: Bevan 1987: 116, Bright 1976d: 202, Bright & Stark 1973: 159, Chararas 1961c: 109, Furniss & Carolin 1977: 411, Grune 1979: 160, Joly 1976: fig. 139, 241, Li, Dang, & Shi 1977: 189, Postner 1974: 471, Tsai & Li 1959: 95, Wood 1957a: 339–341.

Distribution: Africa (Algeria/ Egypt/ Libya/ Morocco/ Tunisia), Asia ("China"/ Japan/ Korea/ Turkey/ Kamchatka, Sakhalin Island, Siberia in E USSR), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Luxembourg/ Netherlands/ Norway/ Poland/ Romania/ Scotland/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), North America (Alaska/ Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland, Nova Scotia, Ontario, Quebec, Saskatchewan in Canada/ Arizona, California, Colorado, Connecticut, District of Columbia, Idaho, Maine, Michigan, Minnesota, Montana, Nevada, New Hampshire, New Mexico, New York, North Carolina, Oregon, Pennsylvania, South Dakota, Tennessee, Utah, Washington, West Virginia, Wyoming in USA).

Hosts: *Picea* spp., *Abies* spp., *Cedrus* sp., *Larix* sp., *Pseudotsuga* spp.

Notes: (3) Endrodi 1957a: 309 (named aberrations *lineellus*, *pauper*, no status), 1957b: 416 (named aberration *mercionale*, no status). The name *melanocephalus* Fabricius has erroneously been referred to this species (Eggers 1933g: 18).

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- meridionale* Eggers 1940g: 38. Lectotype ♂; Kleinasien (Ayancik); USNM, Washington, designated by Anderson & Anderson 1971: 20. Synonymy: Schedl 1951c: 97.
- References: (**cn**) Schimitschek 1938c: 2112, 1939d: 2112, 1944: 172, 1952c: 58. (**cc**) Schimitschek 1941a: 305. (**hb**) Schimitschek 1944: 172. (**tx**) Anderson, W. H. & Anderson 1971: 20; Eggers 1940g: 36, 38–39; Schedl 1951c: 87, 97.

niponicum Blandford 1894d: 125. Syntypes 13, sex?; Miyanoshta and Oyayma, Japan; BMNH, London.

Distribution: Asia (Japan/ Korea/ Taiwan/ Sakhalin Island, E USSR).

Hosts: *Ahnus hirsuta*, *Quercus acutissima*, *Q. aliena*, *Q. dentata*, *Ulmus* sp.

Notes: (1) Originally named as a var. of *quercus* Eichhoff, Eggers 1939: 121 (a good species). Murayama 1954: 168 (a synonym of *signatus* Fabricius). References: (cn) Kurenzov 1935c: 187–188; Shiraki 1952. (ec) Kurenzov 1934a: 50, 1951e: 66. (hb) Krivolutskaya 1973: 140; Kurenzov 1935a: 36, 1948b: 124, 1951b: 18, 1951e: 66; Kurenzov & Kononov 1961: 600; Stark 1952: 365. (ds) Ko 1969: 288; Krivolutskaya 1965a: 238, 1973: 140; Krivolutskaya & Kupyanskaya 1970; Kurenzov 1934d: 50, 1935a: 36, 1935c: 187–188, 1936a: 111, 1936b: 350, 1938a: 60; Kurenzov & Kononov 1961: 595–600; Murayama 1936: 127; Shiraki 1952; Stark 1952: 365; Yanovskii 1974, 1977a; Yanovskii & Tegshzhargal 1985: 413. (tx) Blandford 1894d: 124–125; Eggers 1939c: 121–122; Krivolutskaya 1958: 166; Kurenzov 1941a: 183, 1948b: 124; Murayama 1954: 168; Niisima 1909: 164; Schedl 1934f: 1644, 1951c: 93; Stark 1952: 365.

proximum (Niisima) 1909: 165 (*Xyloterus*). Syntypes 6, sex?; Jozankei, Japan; Nobuchi Collection, Ibaraki.

Figures: Tsai & Li 1959: 96, Yin, Huang, & Li 1984: 184.

Distribution: Asia (Japan/ Korea/ Sakhalin Island, Siberia in E USSR).

Hosts: *Picea koraiensis*, *P. microsperma*.

References: (cn) Inouye 1955; Inouye & Yamaguchi 1955a: 235; Kurenzov 1950a: 6; Yamagisawa 1952: 109. (ec) Banno, Mikata, & Kodama 1983: 445; Inouye & Yamaguchi 1955a, 1955b; Kurenzov 1934a: 50. (hb) Krivolutskaya 1956: 834, 1973: 140; Kurenzov 1935a: 36, 1948b: 110, 1950d: 211; Nishiguchi 1960: 64–73; Qui & Huo 1958: 267; Stark 1952: 362; Yamagisawa 1952: 103–116. (ds) Choo & Woo 1985: 164; Kleine 1913b: 169, 1914b: 260; Kono 1938a: 45–46, 1938b: 65, 69; Kono & Tamanuki 1939: 90, 94; Krivolutskaya 1956: 834, 1965: 238, 1973: 140, 1983; Kurenzov 1934a: 50, 1935a: 36, 1936a: 111, 1936b: 351, 1951: 185–186, 1963b: 115; Murayama 1936a: 127–128, 1937b: 370, 1949c: 101, 1953c: 152, 1954b: 168, 1955: 102, 1957b: 570; Pfeffer 1989b: 130; Stark 1952: 362; Yin, Huang, & Li 1984: 184. (tx) Hagedorn 1910a: 158; Krivolutskaya 1956: 834, 1958: 167; Kurenzov 1941a: 185, 1948b: 110; Murayama 1936a: 127–128, 1937b: 370, 1954b: 168, 1955: 102, 1957b: 570; Niisima 1909: 164–165; Pfeffer 1989b: 130; Schedl 1934f: 1644, 1951c: 87, 95; Stark 1952: 362; Tsai & Li 1959: 96; Yin, Huang, & Li 1984: 184.

pulchellus (Murayama) 1957b: 585 (*Xyloterus*). Holotype ♂; Todorō, Aki County, Kochi pref., Japan; Murayama Collection in USNM, Washington. Distribution: Asia (Japan).

Hosts: *Styrax japonicus*.

Notes: (1) This species was not seen by us; Nobuchi 1985c: 18 placed it in *Indocoryphalus*.

References: (tx) Murayama 1957b: 577, 582, 585–586; Nobuchi 1985c: 18.

retusum (LeConte) 1868a: 158 (*Xyloterus*). Holotype ♂; Canada; MCZ, Cambridge.

Figures: Kusch 1967: 10, Wood 1957a: 339–341.

Distribution: North America (Alaska/ Alberta, British Columbia, Manitoba, New Brunswick, Ontario, Quebec, Saskatchewan, Yukon in Canada/ Arizona, California, Colorado, Connecticut, Idaho, Michigan, Minnesota, Montana, Nevada, New Hampshire, New Mexico, New York, Oregon, Pennsylvania, South Dakota, Utah, Vermont, Washington, West Virginia, Wisconsin, Wyoming in USA).

Hosts: *Populus deltoides*, *P. grandidentata*, *P. tremuloides*.

References: (ay) Abrahamson 1969b; Abrahamson, Chu, & Norris 1967; Hopkins 1894g; Thomas, J. B. 1967. (bv) Meixner 1937: 1218. (cn) Blackman 1950; Chamberlin 1939: 298; Doane et al. 1936; Hewitt 1914: 501–518; Hodson 1951: 9; Holsten & Wolfe 1981; Hopkins 1894: 278; Ishikura 1966; Keen 1938: 147; Leach 1940b: 63; Lindquist, O. H. & Syme 1981: 110; Swaine 1913: 89, 1918a: 84; Wong, H. R. & Melvin 1973. (cc) Abrahamson 1969b: 1733; Abrahamson, Chu, & Norris 1967, 1970: 1107–1110; Chamberlin 1939: 298, 1958: 125–126; Davidson 1958; Hagedorn 1907c; Hinds 1972; Hinds & Davidson 1972; Keen 1938: 147; Leach 1940b: 63; Leach et al. 1940: 227–236; Roeper & French 1981; Slaby 1947: 377; Steinhaus 1946: 404; Verrall 1943: 143; Webb 1945: 63; Werner & Holsten 1984. (hb) Baker, W. L. 1972: 268; Blackman 1950; Bright 1976d: 119; Bright & Stark 1973: 72; Chamberlin 1939: 298, 1958: 125–126; Doane et al. 1936; Drooz 1985: 371; Gast et al. 1989: 384; Harrison 1959: 129; Holstein & Wolfe 1981; Hopkins 1894g; Hubbard 1897a: 429; Keen 1938: 147; Lengerken 1954: 312; Rose, A. H. & Lindquist 1982b; Swaine 1918a: 84; Wong, H. R. & Melvin 1973; Wood, S. L. 1982b: 750. (ds) Abrahamson, Chu, & Norris 1967, 1970: 1107–1110; Anonymous 1926c: 517; Baker, W. L. 1972: 268; Blackman 1950; Blatchley & Leng 1916: 645; Bright 1976d: 119; Bright & Stark 1973: 71; Chamberlin 1939: 298, 1958: 125–126; Dodge 1938: 14, 35–36; Drooz 1985: 371; Evans, D., Lowe, & Hunt 1978; Furniss, R. L. & Carolin 1977: 411; Gast et al. 1989: 384; Gemminger & Harold 1872: 2682; Hagedorn 1910d: 116; Henshaw 1882: 269, 1885: 148; Holsten & Wolfe 1981; Hopkins 1893a: 134,

1893b: 210; Hopping 1922: 128–134; Ishikura 1966; Keen 1929a: 27, 1938: 147; Kleine 1913b: 169, 1914b: 395, 1934a: 178; Kusch 1967; Leng 1920: 339; Leonard 1928: 517; Lindquist, O. H. & Syme 1981: 110; McComb et al. 1953: 4; Murayama 1957a: 36, 1957b: 585; Patterson & Hatch 1945: 152; Pfeffer 1989b: 132; Proctor 1946: 207; Scudder 1876: 83; Smith, C. S. 1930; Swaine 1909: 150, 1913: 89; Werner & Holsten 1984; Wood, S. L. 1948: 37, 1951a: 127, 1972a: 423, 1982b: 750. (**tx**) Benoit 1985: 272; Blatchley & Leng 1916: 645; Bright 1976d: 119; Chamberlin 1939: 298, 1958: 125–126; Dodge 1938: 14, 35–36; Eichhoff 1878b: 420; Hagedorn 1910a: 158; Keen 1929a: 27; Kusch 1967: 10; LeConte 1868a: 158, 1876: 357; Lindquist, O. H. & Syme 1981: 110; Meixner 1937: 1218; Murayama 1957b: 585; Scudder 1876: 83; Swaine 1909: 150, 1918a: 84–85; Thomas, J. B. 1960: 410, 1967; Titus, Meikle, & Harrison 1985: 125; Wood, S. L. 1957a: 345, 348, 1972a: 423, 1982b: 750.

rufitarsis (Kirby) 1837: 193 (*Apate*). Lectotype ♂; Boreal America; BMNH, London, designated by Wood 1982b: 753.

Figures: Wood 1957a: 339–341.

Distribution: North America (Alberta, British Columbia, Manitoba, New Brunswick, Ontario, Yukon in Canada/ Arizona, California, Colorado, Idaho, Minnesota, Montana, Oregon, Utah, Washington in USA).

Hosts: *Pinus banksiana*, *P. contorta*, rarely in *P. jeffreyi*, *P. monticola*, *P. ponderosa*, *Picea engelmannii*.

Notes: (1) Swaine 1917: 22 (to *Trypodendron*).

References: (**ay**) Thomas, J. B. 1967. (**bv**) Prebble & Graham 1957: 92. (**cn**) Chamberlin 1939: 302, 1958: 127; Doane et al. 1936; Hatch 1938: 194; Johnson, N. E. 1958b: 236; Keen 1938: 146; Lindgren 1980a: 70; Lindquist, O. H. & Syme 1981: 110; Smith, G. J. & Melvin 1974b; Swaine 1918a: 85. (**cc**) Chamberlin 1939: 302; DeLeon 1934a; French, J. R. J. & Roeper 1972c; Keen 1938: 146; Roeper & French 1981. (**hb**) Bright & Stark 1973: 73; Chamberlin 1939: 302, 1958: 127; Doane et al. 1936; French, J. R. J. & Roeper 1972c; Keen 1938: 146; Lindgren 1980a: 70; Prebble & Graham 1957: 92; Swaine 1918a: 85. (**ds**) Bright 1976d: 121; Bright & Stark 1973: 73; Chamberlin 1917: 356, 1939: 302, 1958: 127; Dodge 1938: 36–37; Drooz 1985: 371; Furniss, R. L. & Carolin 1977: 411; Gast et al. 1989: 385; Hamilton 1888: 158; Keen 1938: 146; Leng 1920: 339; Lindquist, O. H. & Syme 1981: 110; McComb et al. 1953: 4; Murayama 1957a: 36, 1957b: 585; Patterson & Hatch 1945: 152; Pfeffer 1989b: 132; Smith, G. J. & Melvin 1974b; Swaine 1909: 149; Wood, S. L. 1948: 40, 1951a: 128, 1972a: 423, 1982b: 753. (**tx**) Bright 1976d: 121; Chamberlin 1939: 302, 1958: 127; Dodge 1938: 36–37; Eichhoff 1878b: 417;

Kirby 1837: 193; LeConte 1868: 177, 1876: 426; Lindquist, O. H. & Syme 1981: 110; Murayama 1957b: 585; Pfeffer 1989: 132; Swaine 1909: 149, 1917: 22, 1918a: 85; Thomas, J. B. 1960: 410, 1967; Titus, Meikle, & Harrison 1985: 125; Wood, S. L. 1951a: 128, 1957a: 346, 351, 1972a: 423, 1982b: 753. (**ms**) Hatch 1938: 194.

ponderosae Swaine 1917: 22. Lectotype ♀; Peachland, British Columbia [Canada]; CNCI, Ottawa, designated by Bright 1967b: 679. Synonymy: Wood 1957a: 351.

References: (**bv**) Prebble & Graham 1957: 92. (**cn**) Chamberlin 1939: 301; Doane et al. 1936; Hatch 1938: 194; Keen 1938: 147; Schuder 1969: 75; Swaine 1918a: 85–86. (**cc**) Bedard 1933a; Chamberlin 1918a, 1939: 301; Johnson 1958: 236; Keen 1938: 147. (**hb**) Chamberlin 1939: 301; Doane et al. 1936; Keen 1938: 147; Prebble & Graham 1957: 92; Swaine 1918a: 85–86. (**ds**) Chamberlin 1918a: 39, 1925, 1939: 301; Hopping 1922; Keen 1929a: 27, 1938: 147; Kleine 1934a: 178; Leng 1920: 339; Murayama 1957a: 37, 1957b: 584; Patterson & Hatch 1945: 152; Schuder 1969: 75; Smith, C. S. 1929. (**tx**) Bright 1967b: 679; Chamberlin 1939: 301; Hoebeke 1978; Keen 1929a: 27; Murayama 1957b: 584; de Ruelle 1970: 114; Swaine 1917: 22, 1918a: 85–86; Wood, S. L. 1957a: 351. (**ms**) Hatch 1938: 194.

scabricollis (LeConte) 1868a: 158 (*Xyloterus*). Holotype ♂; Washington, D.C. [USA]; MCZ, Cambridge.

Figures: Blackman 1922b: pl. 8, figs. 39–40, Wood 1957a: 339–341.

Distribution: North America (Arkansas, Maine, Minnesota, Mississippi, New Jersey, North Carolina, Pennsylvania, South Carolina, Virginia, West Virginia in USA).

Hosts: *Pinus banksiana*, *P. echinata*, *P. resinosa*, *P. taeda*.

References: (**bv**) Turnbow & Franklin 1980. (**cn**) Baker, W. L. 1972: 268; Blackman 1950; Chamberlin 1939: 299; Doane et al. 1936; Felt & Cockerell 1907: 217; Hopkins 1899c: 444; Hubbard 1897b: 29; Skinner 1905: 248; Smith, J. B. 1900: 362; Swaine 1918a: 83. (**cc**) Chamberlin 1939: 299; Felt 1906: 752; Hirschmann & Wisniewski 1982, 1983; Hurlbutt 1967; Steinhaus 1946: 404; Woodring & Moser 1970. (**hb**) Baker, W. L. 1972: 268; Batra 1963b: 224; Beal & Massey 1945: 107–108; Blackman 1922b: 79, 1950; Chamberlin 1939: 299; Doane et al. 1936; Drooz 1985: 371; Felt 1906: 752; Hopkins 1899c: 444; Hubbard 1897b: 29; Skinner 1905: 248; Swaine 1918a: 83; Wood, S. L. 1982b: 748. (**ds**) Anonymous 1926c: 517; Atkinson et al. 1991: 160; Beal & Massey 1945; Blackman 1922b: 79, 1950; Blatchley & Leng 1916: 646; Chamberlin 1925, 1939: 299; Cockerell et al. 1907; Drooz 1985: 371; Gemminger &

Harold 1872: 2682; Hagedorn 1910d: 116; Henshaw 1882: 269, 1885: 148; Hopkins 1893a: 134, 1893b: 210; Kirk 1969, 1970; Kleine 1913b: 169, 1934a: 178; Leng 1920: 339; Leonard 1928: 517; Murayama 1957b: 585; Pfeffer 1989b: 131; Provancher 1878: 13; Smith, J. B. 1900: 362, 1910: 402; Swaine 1909: 150; Turnbow & Franklin 1980; Wood, S. L. 1982b: 748. (**tx**) Beal & Massey 1945: 107–108; Blackman 1922b: 79; Blatchley & Leng 1916: 646; Chamberlin 1939: 299; Eichhoff 1878b: 49; Hagedorn 1918a: 158; Hubbard 1897b: 29; LeConte 1868a: 158, 1876: 357–358; Murayama 1957b: 585; Pfeffer 1989b: 131; Swaine 1909: 150, 1918a: 83–84; Wood, S. L. 1957a: 345–346, 1982b: 748.

signatum (Fabricius) 1792: 363 (*Apate*). Holotype ♂; Germany; UZMC, Copenhagen.

Figures: Grune 1979: 160, Hasek 1961: 5, Nakane et al. 1963: pl. 192, Nuorteva 1962a: 44, Pfeffer 1989a: pl. 14, Yin, Huang, & Li 1984: 184.

Distribution: Asia (Japan/ Kuril Islands/ Turkey/ Kamchatka, Sakhalin Island, Siberia in E USSR), Europe (Austria/ Bulgaria/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Norway/ Poland/ Scotland/ Spain/ Sweden/ W USSR/ Wales/ Yugoslavia).

Hosts: *Acer mono*, *A. spp.*, *Alnus hirsuta*, *A. siberica*, *Betula spp.*, *Fagus spp.*, *Fraxinus spp.*, *Populus spp.*, *Tilia spp.*, *Ulmus japonica*, *U. propinqua*.

References: (**ay**) Escherich 1923b: 462, 488, 627; Fisher 1954; Francke-Grosmann 1956b, 1959; Nunberg 1951: 263; Nusslin 1911a: 112. (**bv**) Grune 1979: 161; Hellen 1921; Paiva 1982a, 1982b; Paiva, Kiesel, & Vite 1983; Payne et al. 1983; Schurig et al. 1982, 1983; Weber, R. & Schurig 1984. (**cn**) Acatay 1943a: 68–69; Barbey 1925: 436, 553; Baryshman 1955; Becker 1950; Belousov 1917: 334–337; Blandford 1890, 1893c; Cotes 1893b; Eckstein 1926: 579; Escherich 1917: 97–115, 1923b: 462, 488, 627, 1936; Esterberg 1959; Falck 1916: 167; Greschke 1953: 461; Hasek 1961: 5; Hellen 1921; Hess & Beck 1914: 167; Inouye & Yamaguchi 1955a: 235; Jacquiot 1951a: 1; Judeich & Nitsche 1895: 539; Kamp 1954: 3; Kangas 1958d: 164; Kholodkovskii 1912: 322; König, E. 1957: 104; Kovacevic 1957: 69; Nusslin 1913: 259; Paiva 1982b; Palm 1951: 234; Reissig 1949: 131; Rhumbler 1922: 305, 1927: 318; Saalas 1919: 1–415, 1949: 329, 343, 378; Schimitschek 1937c: 53, 1944: 172, 1952c: 60, 1955a: 137, 1955c: 83; Schonherr & Wellenstein 1967; Schwerdtfeger 1944a: 184; Strohmeier 1906b: 330; Taraschkewitsch 1934: 357; Wachtl 1901: 379, 382; Weber, T. 1965; Wolff & Krausse 1922: 90; Zwolfer 1949: 401. (**cc**) Apel 1983; Balazy & Michalski 1964b; Braunmanis 1940; Carpelan 1944; Fisher 1954; Francke-Grosmann 1952a, 1956b, 1959; Inouye & Yamaguchi 1955a: 235; Inouye et al.

1955: 116; Kangas 1942b; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980b, 1983; Kleine 1908c: 220; Kivosheina 1974; Lundberg 1984; Michalski & Ratajczak 1989; Nikitsky 1978; Nosek 1959a: 118; Novak, P. 1952: 416; Nuorteva 1956a: 17, 1961c: 119, 1968a, 1970, 1971: 69; Nuorteva & Laine 1968; Nusslin 1927: 318; Okolow 1963; Pfeffer 1923a: 331, 1943b: 181; Pfeffer & Prihoda 1950: 3; Rummukainen 1954: 8; Saalas 1930: 118, 1949: 329, 343, 478; Schimitschek 1941a: 313, 1955a: 137; Schwerdtfeger 1944a: 184; Sedlaczek 1915a: 127, 1935a: 162; Szczepanski 1960a: 407; Thompson, W. R. 1943: 118; Vite 1952a: 103; Wichmann 1955a: 95; Wisniewski 1979b, 1979c: 4. (**hb**) Acatay 1943a: 68; Apel 1983; Baeta Neves 1943a; Barbey 1925: 436, 553; Becker 1950; Blandford 1890; Cotes 1893a, 1893b; Dihm 1920; Dombrowsky 1887; Eckstein 1897, 1926: 579, 1928; Eggers 1917; Escherich 1923b: 4, 62, 488, 627; Falck 1916: 167; Fisher 1954; Fuchs 1904a; Gillanders 1908; Gornostaev 1916: 314; Groschke 1953c; Györfi 1936: 527, 1957; Hagedorn 1903a; Hergula 1939: 309; Hess & Beck 1914: 288; Inouye et al. 1955: 116; Jacquiot 1951a: 1; Judeich & Nitsche 1895: 539; Kangas 1940b; Karpinski 1933b: 29; Karpinski & Strawinski 1948: 155; Kharitonov 1924: 199–204; Kholodkovskii 1912: 322; König, E. 1957: 104; Kostin 1960: 133; Lengerken 1954: 318; Liese 1950: 142; Matouschek 1917: 214; Nakashima 1975: 9; Nosek 1959a: 118; Nunberg 1929: 108; Nuorteva 1962a, 1968a, 1970; Nusslin 1898: 283, 1913: 259, 1927: 318; Paiva, Kiesel, & Vite 1983; Palm 1951: 234; Pfeffer 1942a: 3; Pierce 1907: 291; Postner 1974: 472; Räteburg 1837: 164, 1839: 199; Rhumbler 1922: 305, 1927: 318; Saalas 1913a: 69, 84, 1949: 329, 343, 378; Schedl 1981b: 99; Schimitschek 1944: 172, 1955a: 137; Schwerdtfeger 1944a: 184, 1981: 196; Sedlaczek 1935a: 162; Simmel 1919a: 34–36; Spessivtsev 1913a: 97; Stark 1926a: 336, 1952: 364; Strohmeier 1906b: 330; Thomsen 1948: 807; Tragardh 1939b: 158; Tredl 1915b: 164, 1917: 214; Vite 1952a: 103; Wachtl 1901: 379, 382; Wolff & Krausse 1922: 90. (**ds**) Aclouque 1896; Alexander 1988; Allen 1965a: 24; Angus 1965a: 7; Andras & Schaefer 1957; Barthe 1896; Bedel 1888b: 404, 420; Bejer-Petersen & Jorim 1977: 23; Belousov 1916, 1917: 336; Bielz 1887; Borchert 1951; Brakman 1966b: 206; Brancsik 1906; Bucking 1932; Buresh & Lazarov 1956; Carpelan 1944; Cecconi 1897; Choo, Woo, & Park 1988; Cooter 1970; Cotes 1893a, 1893b; Debatisse 1945; Dejean 1821, 1825, 1837; Eckstein 1923; Eder 1934; Eggers 1904, 1917: 52; Endrodi 1958b; Escalera 1919; Escherich 1923b: 462, 488, 627, 1932b; Esterberg 1928, 1959; Feige 1918; Fricken 1889: 356; Fuchs 1904a, 1905a; Gaubil 1849: 127; Gornostaev 1917: 308–315; Grill 1895: 309; Grune 1979: 161; Györfi 1936: 527; Hagedorn 1903a, 1910d: 116;

- Hansen, V. 1939, 1956, 1964: 462; Harde & Kostlin 1965: 267; Heller 1947; Heyden, Reitter, & Weise 1883: 182, 1891: 674, 1906: 713; Horion 1949, 1951; Jazentkovsky 1912: 292; Judeich & Nitsche 1895: 539; Kangas 1942b; Karpinski 1925: 216, 1926: 82, 1931: 28, 1933b: 29, 1948b: 230; Karpinski & Strawinski 1948: 155; Keler 1921: 100–104, 1925b: 275; Kersten 1933: 74; Klefbeck & Sjöberg 1960: 232; Kleine 1912a: 263, 268, 1913a: 36, 1913b: 169, 1914b: 250, 1934a: 178; Kloft & Hinks 1945: 218; Koch 1961: 118; Kovacevic 1924: 21–22, 1957: 69; Kozikowsky 1921: 180; Krogerus 1921: 57; Kurir 1947c: 26; Langhoffer 1915b: 158; Leclercq 1971; Liese 1950: 142; Lomnicki 1913b: 149; Lovendal 1890c: 211; Lucht 1987: 280; Lundberg 1974: 92; Mayne 1953: 310; Murayama 1953a: 13, 1954b: 169, 1955: 102, 1957b: 570; Nakane et al. 1963: 382; Negru 1966b: 401; Nessling 1924: 28; Novak, P. 1952: 416; Numberg 1928b: 88, 107, 1954: 44; Nuorteva 1962: 44, 1971: 67; Nusslin 1898: 283; Palm 1948a: 91, 1959: 60, 214; Pfeffer 1931b: 74, 1936: 90, 1989a: 54, 1989b: 132; Pjatnitskii 1930a: 165; Pomerantzev 1907b: 494; Postner 1974: 472; Ragusa 1924: 117; Rapp 1934: 737; Ratzeburg 1837: 164, 1839: 199; Reissig 1949: 131; Reitter 1894a: 92, 1916: 291; Roubal 1941: 270; Rusehka 1923: 201; Saalas 1913a: 69, 84, 1930: 118, 1931: 67; Sainte-Claire & Mequignon 1938: 448; Schaufuss 1915: 1234; Schedl 1980a: 17, 1981b: 99; Scheidt 1919: 165; Schilsky 1909: 189; Schiodte 1873: 104; Schneider & Leder 1977: 65; Schwerdtfeger 1981: 196; Seidlitz 1891a: 568, 1891b: 614; Stark 1926a: 336, 1926b: 103, 1926j: 126, 1927b: 89, 1931a: 26, 1931d: 547, 1952: 364; Stein & Weise 1877: 165; Stierlin 1898: 448; Stierlin & Cantard 1906: 206; Strand 1946: 602; Strand & Hanssen 1935: 70; Sturm 1826: 102; Tragardh 1939b: 158; Tredl 1907: 19, 1915: 164–169; Villa & Villa 1833: 26; Wanka 1908: 231; Westhoff 1882: 240; Wichmann 1955a: 95; Winter, T. G. 1983: 28; Yanovskii 1989: 64; Yanovskii & Dmitrienko 1983; Yanovskii & Tegshzhargal 1985: 415; Yin, Huang, & Li 1984: 184; Zinovjev 1955: 187; Zolk 1935: 614–640; Zoufal 1920: 21. (tx) Acloque 1896; Allen 1965a; Apel 1983; Balachowsky 1949a: 199; Bedel 1888b: 404, 420; Blandford 1890: 181–186; Dejean 1821, 1825; Dombrowsky 1887; Duffy 1953; Eggers 1929e: 41; Eichhoff 1876a: 378; Endrodi 1957b; Escherich 1923b: 462, 488, 627; Fabricius 1792: 363, 1801: 383; Fauvel 1889; Fleischer 1927; Formanek 1907: 56; Fricken 1889: 356; Gillanders 1908; Grune 1979: 160–161; Hagedorn 1904e, 1910a: 158; Hansen, V. 1956, 1964: 412; Hasek 1961: 5; Iablokoff-Khnzorian 1966: 89; Judeich & Nitsche 1895: 539; Karpinski & Strawinski 1948: 155; Keler 1921: 100–104; Kuhlnt 1913: 1061; Letzner 1891: 378; Lovendal 1889b: 81, 1890c: 211, 1898: 194; Lucht 1987: 280; Murayama 1953a: 13, 1954b: 168–169, 1955: 102, 1957b: 570; Nakane 1963: 383; Nakane et al. 1963: pl. 192; Negru 1966b: 401; Numberg 1954: 44; Nuorteva 1962a: 44; Nusslin 1911a: 112; Panzer 1795a: 283; Pfeffer 1932b: 19, 1942a: 3, 1955a: 166, 1989a: pl. 14; Portevin 1935: 326; Postner 1974: 472; Puton 1867: 631; Qnaschik 1953: 35; Ratzeburg 1837: 164, 1839: 199; Reitter 1894a: 92, 1913a: 74, 1916: 291; Rhumbler 1922: 305, 1927: 318; Saalas 1913a: 69, 84, 1949: 329, 343, 378; Schedl 1934f: 1644, 1951c: 87, 90, 1952f: 88, 1979c: 228, 1980a: 17, 1981b: 99; Selimitschek 1937c: 53, 1955c: 83; Seidlitz 1891a: 568, 1891b: 614; Semenov 1902: 271; Spessivtsev 1913a: 97, 1922a: 475, 492, 1923: 214, 1925a: 177, 1925b: 35, 1931: 34–56; Stark 1952: 364; Stierlin 1898: 448; Yin, Huang, & Li 1984: 184. (ms) Escherich 1932b; Hellen 1921; Matouschek 1917: 214; Schurig et al. 1982; Tredl 1917: 214; Weber, R. & Schurig 1984.
- quinquelineatum* Adams 1817: 312 (*Bostrichus*).
 Syntypes, sex[?]; Caucasiam circa oppidum Georgiovsk; not given. Synonymy: Balachowsky 1949a: 199, Pfeffer 1955: 167.
 References: (ds) Gemminger & Harold 1872: 2687; Lacordaire 1866: 378; Stein & Weise 1877: 165. (tx) Adams 1817: 312; Balachowsky 1949a: 199; Erichson 1836: 60; Ferrari 1867a: 10; Lacordaire 1866: 378; Pfeffer 1955: 167; Wood, S. L. 1957a: 337.
- waringi* Curtis 1840: 279 (*Bostrichus*). Holotype, sex[?]; Bristol, England; not located. Synonymy: Schedl 1951c: 90.
 References: (ds) Rye 1867: 250. (tx) Curtis 1840: 279; Schedl 1951c: 90.
- quercus* Eichhoff 1864a: 381 (*Xyloterus*).
 Syntypes, sex[?]; Germany; Hamburg Museum, lost. Synonymy: Balachowsky 1949a: 199, Pfeffer 1955: 167.
 References: (cn) Houba 1913: 253; Koppen 1882: 260. (hb) Altum 1851c: 309, 1859c; Barbey 1901: 28, 111; Bargmann 1906; Budkov 1897; Eckstein 1889; Eichhoff 1881a: 54, 296; Fisher 1936a; Furst 1888: 113; Fuss 1865: 412; Henschel 1895a: 194; Knotek 1894a: 559; Lunardoni & Leonardi 1889: 491; Munro 1926: 60; Niisima 1908b: 18; Wachtl 1876a: 456. (ds) Blanchere & Robert 1889; Blandford 1894c; Budkov 1897; Calwer 1884, 1893; Chrystal 1937; Fanvel 1885; Favre 1890; Fisher 1936a; Fowler 1891; Fuss 1865: 412; Gemminger & Harold 1872: 2682; Gozis 1875: 80; Henschel 1895a: 194; Hickin 1963; Kaltenbach 1874: 646; Knotek 1892a: 38, 1894a: 559; Koppen 1882: 260; Kraatz 1869: 60; Lacordaire 1866: 378; Lokaj 1868: 64; Lunardoni & Leonardi 1889: 491; Matthews & Fowler 1883: 42; Murayama 1936a: 127; Niisima 1908b: 18; Puton 1867: 631–634; Redtenbacher 1874: 383; Rye 1866: 93, 1867: 250; Schilsky 1909: 189; Seidlitz 1872: 393; Sharp & Fowler 1893: 39; Stein 1868: 114; Stein & Weise 1877: 165; Stierlin &

- Gautard 1871: 292, 364; Wachtl 1876a: 456; Wichmann 1927a: 68; Winter, T. G. 1983: 28. (tx) Balachowsky 1949: 199; Barbey 1901: 28, 111; Bertolini 1872; Eichhoff 1864a: 381, 1865: 412, 1868d: 421, 1876a: 378–391, 1878b: 414, 1881a: 54, 296, 1883a: 116, 144; Fauvel 1885; Ferrant 1911; Ferrari 1867a: 9, 1867b: 113; Fuss 1865; Henschel 1895a: 194; Knotek 1892a: 38; Lacordaire 1866: 378; Letzner 1891: 378; Lovendal 1889b: 80, 1898; Lunardoni & Leonard 1889: 491; Murayama 1936a: 127; Niisima 1909: 164; Redtenbacher 1874: 383; Seidlitz 1872: 393; Spessivtsev 1913: 97. (ms) Eichhoff 1868d: 421; Schwappach 1924: 59.
- suturale* Eggers 1933e: 52. Holotype ♂; Wladivostok (USSR); IZL, Leningrad. Synonymy: Schedl 1951c: 93.
References: (hb) Kurenzov 1948b: 116; Stark 1952: 371. (ds) Krivolutsкая 1983; Stark 1952: 371. (tx) Eggers 1933e: 52; Kurenzov 1941a: 184, 1948b: 116; Michalski 1969b: 570; Schedl 1951c: 93; Sokanovskii 1954: 19, 1958: 39, 1960: 677; Stark 1952: 371.
- obtusum* Eggers 1939c: 121. Lectotype ♂; Japan (Karafuto, Nopporo); USNM, Washington, designated by Anderson & Anderson 1971: 22. Synonymy: Schedl 1951c: 87.
References: (ds) Murayama 1957b: 570. (tx) Anderson, W. H. & Anderson 1971: 22; Eggers 1939c: 121–122; Murayama 1954: 168, 1957b: 570; Schedl 1951c: 87, 93, 1979c: 176.
- Genus *Indocryphalus* Eggers
- INDOCRYPHALUS EGGER 1939b: 6. Type-species: *Indocryphalus malaisei* Eggers = *Xyloterus intermedius* Sampson, original designation.
- Dendrotrypanum* Schedl 1951c: 76. Type-species: *Xyloterus aceris* Niisima, subsequent designation by Browne 1970: 562. Synonymy: Browne 1970: 562.
References: (tx) Browne 1970: 562; Schedl 1951c: 76; Thomas 1960: 410; Wood, S. L. 1957a: 344.
Keys: Browne 1970: 562, Schedl 1951: 77.
References: (tx) Browne 1970: 562; Choo 1983: 64; Choo, Woo, & Nobuchi 1988b; Eggers 1939b: 6–7; Schedl 1963i: 62; Wood, S. L. 1986a: 78.
- aceris* (Niisima) 1910a: 4 (*Xyloterus*). Syntypes, sex?; Sapporo, Japan; Nobuchi Collection, Ibaraki. Figures: Thomas 1960: 411, 413 (larva). Distribution: Asia (Japan, E USSR). Hosts: *Acer babonerve*, *A. manshuricum*, *A. mono*, *A. pictum*, *A. pseudosieboldianum*, *A. tegmentosum*, *A. ukurudense*. References: (ay) Nobuchi 1969a: 59; Thomas, J. B. 1960: 410, 1967. (cn) Anonymous 1980g; Kurenzov 1935c: 189. (cc) Inouye et al. 1955: 112; Kurenzov 1934a: 51. (hb) Inouye et al. 1955: 112; Kurenzov 1935a: 37, 1948b: 124; Leist 1902: 25–26; Stark 1952: 361. (ds) Anonymous 1980g; Kleine 1934a: 178; Krivolutsкая 1983; Kurenzov 1934a: 57, 178, 1935a: 37, 1935c: 189, 1965; Murayama 1953a: 12, 1954b: 167, 1957b: 570, 578; Stark 1952: 361. (tx) Browne 1970: 562; Eggers 1939c: 123, 1941b: 225; Kurenzov 1941a: 181–182, 1948b: 124; MacLean & Giese 1967: 285; Murayama 1953a: 12, 1954b: 167, 1957b: 570, 578; Niisima 1910a: 4; Schedl 1934f: 1644, 1951c: 76–78, 82; Stark 1952: 361; Thomas, J. B. 1960: 411, 413, 1967; Wood, S. L. 1957a: 352.
- dainichiensis* (Murayama) 1954: 191 (*Xyloterus*). Holotype ♀; Mt. Dainichi, Gifu pref.; Murayama Collection, USNM, Washington. Distribution: Asia (Japan). Hosts: *Aesculus turbinata*. References: (ds) Murayama 1954b: 167, 191, 1957b: 570, 579. (tx) Murayama 1954b: 167, 191, 1957b: 570, 579.
- intermedius* (Sampson) 1913: 445 (*Xyloterus*). Syntypes, sex?; Bashahr State, N.W. Himalayas, India; BMNH, London. Distribution: Asia (Burma/ Bengal, Punjab in India/ Nepal). Hosts: *Castinopsis hystrix*, *Quercus lamellosa*, *Symplocos theaeifolia*. References: (cn) Mathur & Singh 1961a: 84; Stebbing 1914: 602. (cc) Stebbing 1914: 602. (hb) Beeson 1922c: 499; Stebbing 1914: 602. (ds) Beeson 1922c: 499; Kleine 1934a: 178; Mathur & Singh 1961a: 84; Murayama 1957b: 585; Schedl 1975c: 383. (tx) Browne 1970: 562; Murayama 1957b: 585; Sampson 1913: 415, 445–446; Stebbing 1914: 602.
- malaisei* Eggers 1939b: 7. Holotype, sex?; Nordost-Birma (Kambaiti, 7000 fuss hoch); NHR, Stockholm. Synonymy: Browne 1970: 562. References: (tx) Browne 1970: 562; Eggers 1939b: 7.
- machili* Wood 1988c: 197. Holotype ♀; Ramgarh, Naini Tal, U.P., 7,000 ft; FR1, Dehra Dun. Distribution: Asia (Bengal, Uttar Pradesh in India). Hosts: *Machilus odoratissima*, uncommon in *Cinnamomum impressinervium*. References: (tx) Wood, S. L. 1988c: 197.
- majus* (Eggers) 1926b: 148 (*Trypodendron*). Holotype, sex?; Tomakomai, Japan; Nobuchi Collection, Ibaraki. Distribution: Asia (Japan). Notes: (1) Browne 1970: 562 (to *Indocryphalus*). References: (ds) Murayama 1954b: 167, 1955: 102, 1957b: 570, 577. (tx) Browne 1970: 562; Eggers 1926b: 148, 1939c: 123; Murayama 1954b: 167, 1955: 102, 1957b: 570, 577; Schedl 1934f: 1644, 1951c: 44, 76–78.
- pubipennis* (Blandford) 1894d: 125 (*Trypodendron*). Syntypes 4, sex?; Sapporo, Kiga, Miyano-shita, and Ichinchi, Japan; BMNH, London.

Distribution: Asia (Japan/ Korea/ Kuril Islands/ Taiwan/ Sakhalin Island and E USSR).

Hosts: *Benzoin thumbergii*, *Cinnamomum japonicum*, *Cleyera japonica*, *Fagus crenata*, *Ficus* spp., *Hamamelis japonica*, *Lindera erythrocarpa*, *Machilus thumbergii*, *Phyllanthus flexuosus*, *Rhus trichocarpa*, *Zelkova serrata*.

References: (cn) Anonymous 1980g; Murayama 1954a: 21; Shiraki 1952. (ec) Banno, Mikata, & Kodama 1983: 445; Kurenzov 1934a: 55. (hb) Krivolutskaya 1973: 140; Stark 1952: 371. (ds) Anonymous 1980g; Blandford 1894c; Cho 1957; Choo 1983: 64; Choo & Woo 1985: 164; Hagedorn 1910d: 116; Kleine 1913b: 169, 1914b: 261, 1934a: 178; Ko 1969: 288; Krivolutskaya 1973: 140; Kurenzov 1934a: 58; Murayama 1929b: 2, 1930b: 14, 1931a: 39, 1937b: 375, 1949c: 101, 1950b: 1293, 1953a: 12, 1954a: 21, 1954b: 168, 1955: 102, 1957b: 570, 578; Nobuchi 1967: 24; Shiraki 1952; Stark 1952: 371. (tx) Blandford 1894d: 125; Browne 1970: 562; Choo 1983: 64; Eggers 1939c: 123; Hagedorn 1910a: 158; Murayama 1930b: 14, 18, 30, 1931a: 39–40, 1934c: 298, 1937b: 375, 1950b: 1293, 1953a: 12, 1954b: 168, 1955: 102, 1957b: 570, 578; Niisima 1909: 164, 166; Sampson 1913: 446; Schedl 1934f: 1644, 1951c: 76–77; Sokanovskii 1954: 19; Stark 1952: 371; Strohmeier 1914: 32.

sinensis (Eggers) 1941b: 225 (*Trypodendron*). Holotype ♀; China: Fukien (Kuatun, 2300 m); not given. Distribution: Asia (Fujian in China).

Notes: (1) Schedl 1951c: 76 (to *Dendrotrypanum*, = *Indocryphalus*).

References: (tx) Browne 1970: 562; Eggers 1941b: 225; Schedl 1951c: 76–78.

sordidus (Blandford) 1894c: 577 (*Trypodendron*). Holotype ♀; Japan; BMNH, London.

Distribution: Asia (Japan).

References: (ds) Blandford 1894c; Hagedorn 1910d: 116; Kleine 1913b: 169; Murayama 1949c: 101, 1954b: 169, 1957b: 570, 577. (tx) Blandford 1894c: 577; Browne 1970: 562; Eggers 1939c: 123, 1941b: 225; Hagedorn 1910a: 158; Murayama 1950: 52, 1954b: 169, 1957b: 570, 577; Schedl 1934f: 1644, 1951e: 76–77, 80.

tropicus (Browne) 1950b: 648 (*Trypodendron*). Holotype ♀; Malaya: Selangor, Kepong; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Castanopsis sumatrana*.

Notes: (1) Browne 1970: 562 (to *Indocryphalus*).

References: (hb) Browne 1961c: 81. (ds) Browne 1961c: 81; Murayama 1957b: 585. (tx) Browne 1950b: 648, 1961c: 81, 1970: 562; Murayama 1957b: 585.

Genus *Xyloterinus* Swaine

XYLOTERINUS SWAINE 1918a: 44, 83. Type-species: *Bostrichus politus* Say, original designation.

References: (ay) Browne 1961d: 60; Thomas, J. B. 1960: 410. (hb) Wood, S. L. 1982b: 745, 1986a:

79. (ds) Wood, S. L. 1982b: 745, 1986a: 79. (tx) Arnett 1960: 1037, 1044, 1968: 1037, 1044; Beal & Massey 1945: 59, 106; Blackman 1922b: 75, 78; Chamberlin 1939: 285–286; Dodge 1938: 18; MacLean & Giese 1967; Swaine 1918a: 44, 83; Wood, S. L. 1957a: 344, 352, 1982b: 745–746, 1986a: 79.

politus (Say) 1826: 256 (*Bostrichus*). Syntypes, sex?; Eastern United States [USA]; Say Collection, lost. Figures: Blackman 1922b: pl. 5, fig. 42, Bright 1976d: 203, 211, Dillon & Dillon 1961: 196, 801, MacLean & Giese 1967: 288, 298, Wood 1957a: 339–341.

Distribution: North America (New Brunswick, Ontario, Quebec in Canada/ Connecticut, District of Columbia, Georgia, Illinois, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Virginia, West Virginia, Wisconsin in USA).

Hosts: *Acer* spp., *Ahus* spp., *Betula* spp., *Carya* spp., *Castanea* sp., *Fagus* sp., *Fraxinus* spp., *Quercus* spp., *Picea* sp., *Pinus* spp., *Tsuga* sp., *Ulmus* spp.

References: (ay) Abrahamson 1969b; Abrahamson & Norris 1966a: 877–880, 1966b; Hatch 1926; Hopkins 1894g; MacLean & Giese 1967; Thomas, J. B. 1960: 410, 1967. (bv) Haack, R. A., Benjamin, & Haack 1983; Hosking & Knight 1975. (cn) Anonymous 1950; Baker, W. L. 1972: 267; Blackman 1950; Browne 1968b: 721; Chamberlin 1939: 286; Connola et al. 1956: 1–36; Doane et al. 1936; Drake 1921: 201, 205; Felt 1901: 516–517, 1905: 292–293, 1906: 70, 1926: 247–248, 276, 1930a: 247–248, 276; Felt & Rankin 1932: 327; Fletcher 1886: 32; Friend 1943: 207–315; Hopkins 1894: 278, 1899c: 414; Hubbard 1897b: 28; MacLean & Giese 1967: 285, 1968: 185–189; Packard 1890: 287; Shigo 1966; Smith, J. B. 1900: 362; Swaine 1918a: 83; Wallace 1943a: 288. (ec) Abrahamson 1969b: 1733; Abrahamson & Norris 1966b, 1969; Baker, W. L. 1972: 267; Batra 1963b: 217; Chamberlin 1939: 286; Cote & Allen 1980; Currie 1955; Dorsey & Leach 1956: 222; Felt 1906: 292; Finnegan & Gagnon 1964: 2–3; Haack, R. A., Benjamin, & Haack 1983; Jewell 1956: 251; MacLean & Giese 1967, 1968; Matthews 1970; Nash 1951: 46; Peplinski & Merrill 1974; Skelly 1968: 1541; Stambagh et al. 1955: 867; Steinhilber 1946: 404; Thompson, W. R. & Simmonds 1964: 40, 1965; Wertz, Skelly, & Merrill 1971. (hb) Annala et al. 1972: 22; Baker, W. L. 1972: 267; Beal & Massey 1945: 105–107; Blackman 1922b: 78–79, 1950; Bright 1976d: 122; Browne 1968b: 721; Chamberlin 1939: 286; Chittenden 1890; Deyrup & Atkinson 1987a: 65; Dillon & Dillon 1961: 810; Doane et al. 1936; Drake 1921; Drooz 1955: 371; Felt 1906: 292, 1926: 247–248, 276, 1930a: 247–248, 276; Felt & Rankin 1932: 327;

Haack, R. A., Benjamin, & Haack 1983; Hopkins 1894g, 1899c: 444; Hubbard 1897b: 28; MacLean & Giese 1967; Packard 1890: 387; Pierce, W. D. 1907: 291; Schwarz 1891e: 77–78; Shigo 1966: 1; Swaine 1918a: 83. **(ds)** Anonymous 1926c: 517, 1964h, 1965g, 1976e; Beal & Massey 1945: 105–107; Beaulne 1941, 1956; Blackman 1922b: 78–79, 1950; Blatchley & Leng 1916: 645; Bright 1976d: 122; Browne 1968b: 721; Chamberlin 1925, 1939: 286; Chittenden 1890; Deyrup 1981b: 6; Deyrup & Atkinson 1987a: 65; Dodge 1938: 34–34; Drooz 1985: 371; Felt 1926: 247–248, 276, 1930a: 247–248, 276; Felt & Rankin 1932: 327; Gemminger & Harold 1872: 2682; Hagedorn 1910d: 115; Hamilton 1895a: 346, 378; Henshaw 1885: 148; Hoffmann 1942: 13; Hopkins 1893a: 134, 1893b: 210; Hubbard & Schwarz 1878a: 666; Kaston 1938: 240; Kleine 1913b: 169, 1934a: 178; Leng 1920: 339; Leonard 1928: 517; Melsheimer 1853: 87; Pechuman 1937: 13; Proctor 1946: 207; Schwarz 1890: 87, 1891e: 78; Smith, J. B. 1900: 362; Swaine 1909: 149; Wood, S. L. 1982b: 745. **(tx)** Beal & Massey 1945: 105–107; Benoit 1985: 284; Blackman 1922b: 78–79; Blatchley & Leng

1916: 645; Bright 1976d: 122, 203, 211; Chamberlin 1939: 286; Dillon & Dillon 1961: 196, 801, 810; Dodge 1938: 14, 34–35; Eichhoff 1878b: 420; Hagedorn 1910a: 158; Hubbard 1897b: 28; Jacques 1951: 352; LeConte 1868: 159, 1876: 357–358; MacLean & Giese 1967: 288, 298; Say 1826: 256; Schwarz 1889b: 149; Swaine 1909: 149, 1915: 83, 1918a: 83; Thomas, J. B. 1960, 1967; Titus, Meikle, & Harrison 1985: 129; Wood, S. L. 1957a: 352, 1982b: 745–746.

unicolor Eichhoff 1872c: 136 (*Xyloterus*). Syn-types ♀; Wisconsin [USA]; Hamburg Museum, lost. Synonymy: Hopkins 1893: 210, Wood 1957a: 353.

References: **(cn)** Smith, J. B. 1900: 362. **(ds)** Gemminger & Harold 1872: 2682; Hagedorn 1910d: 116; Henshaw 1885: 148; Hopkins 1893a: 134, 1893b: 210; Kleine 1913b: 169, 1914b: 401; Leng 1920: 339; Murayama 1957b: 587; Smith, J. B. 1900: 362; Swaine 1909: 149. **(tx)** Eichhoff 1872c: 136, 1878b: 419; Hagedorn 1910a: 158; LeConte 1876: 358; Murayama 1957b: 585; Niisima 1909: 166; Sampson 1913: 446; Swaine 1909: 149; Wood, S. L. 1957a: 352.

Tribe Xyleborini LeConte

Xylebori

References: Blandford 1898b: 191; LeConte 1876: 346, 358.

Xyleboridae

References: Eichhoff 1878b: 308; Hagedorn 1908: 377, 1910a: 24, 149, 1910d: 97.

Xyleborinae

References: Lucas 1920: 65; Nusslin 1911: 432.

Xyleborini

References: LeConte & Horn 1883: 516; Lucas 1920: 65; Reitter 1913a: 28; Wood, S. L. 1978a: 114, 1982b: 68, 1986a: 79–84; Yin, Huang, & Li 1984: 152.

Xyleborina

References: Balachowsky 1949a: 218; Nunberg 1954: 17.

Webbinae

References: Hopkins 1915c: 224.

Genus *Premnobius* Eichhoff

PREMNOBIUS EICHHOFF 1878b: 65, 404. Type-species: *Premnobius cavipennis* Eichhoff, monobasic.

Premnophilus Browne 1962g: 79. Type-species:

Xyleborus joveri Schedl = *Premnobius quadrispinosus* Schedl, original designation.

Synonymy: Schedl 1964j: 52.

References: (tx) Browne 1962g: 79; Schedl 1963j: 480, 1964j: 52.

Keys: Wood 1982b: 756 for American species.

Notes: (1) Although contrary to the letter of the Code, but consistent with the spirit of stability in nomenclature, the following departure from traditional taxonomic practice is followed here. In Schedl 1957d, the universally recognized genus *Premnobius* was made a junior synonym of *Xyleborus* thereby creating eight homonyms. Browne 1961d strenuously objected to that action and restored all of these junior homonyms to validity in *Premnobius*. At that time, 1957, the old code of nomenclature had been suspended, and the new code did not become effective until 1960. Because Schedl's action was not in the best interests of the science of nomenclature, and since it was strenuously objected to by Browne and was not supported or condoned by anyone except Schedl, the pre-1957 names are retained here, as was done by Browne 1961d, even though a strict interpretation of Code article 59d had a starting date of 1960.

References: (ay) Nobuchi 1968a: 63. (bv) Schedl 1960f: 10. (hb) Browne 1961d; Van Ryn-Tournel 1975; Wood, S. L. 1982b: 755, 1986a: 82. (ds) Browne 1961d: 50; Wood, S. L. 1952b: 755, 1986a: 82. (tx) Arnett 1960: 1044, 1968: 1044; Browne 1961d: 45–49, 1961e: 9; Eichhoff 1878b: 65, 404; Schedl 1934d: 85, 1957d: 15, 1964j: 50; Wood, S. L. 1982b: 755, 1986a: 82.

ambitosus (Schaufuss) 1897b: 109 (*Xylocleptes*). Holotype ♀; Gabon; Hamburg Museum, lost.

Distribution: Africa (Cameroon/ Canary Islands/ Congo/ Equatorial Guinea/ "French East Africa"/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Liberia/ Nigeria/ Sierra Leone/ Tanzania/ Zaïre), South America (Bolivia/ Brazil/ Colombia).

Hosts: *Albizzia* spp., *Celtis mildbraedii*, *C. soyaurii*, *Gmelina arborea*, *Gossypium hirsutum* (fruit), *Mangifera indica*.

References: (cn) Chesquiere 1933a; Mayne & Donis 1951: 333. (ec) Mayne & Donis 1951: 333. (hb) Roberts 1969: 127; Thompson, G. H. 1960, 1963: 60. (ds) Browne 1970: 543, 1980c: 486; Chesquiere 1933a: 32–35, 1933b: 783–785; Hagedorn 1910d: 62; Hargreaves 1937: 509; Kleine 1913b: 132, 1914b: 312; Nunberg 1952: 19, 1961a: 329, 1965b: 19, 1972b: 197; Schedl 1938d: 451, 1964f: 618, 1965e: 353, 1965g: 20, 1966a: 276, 1966c: 226, 1967d: 2, 1967e: 215, 1971e: 2, 1971g: 192, 1972e: 283, 1972g: 44, 1973d: 157, 1975h: 350; Thompson, G. H. 1960, 1963: 60; Wood, S. L. 1977a: 72, 1982b: 758. (tx) Eggers 1922b: 173, 1927a: 198, 1941d: 179; Hagedorn 1909: 733, 1910a: 98, 107; Nunberg 1952: 19, 1961a: 329; Schaufuss 1897b: 109–110; Schedl 1938d: 451, 1950d: 8, 18, 1953g: 242, 1954e: 50, 61–64, 1955d: 269, 1957d: 85, 1960i: 107, 1962j: 534, 1962k: 1098, 1966g: 20; Wood, S. L. 1982b: 758.

cavipennis spinosus Hagedorn 1908: 376. Syntypes ♀; Kinchassa (Waelbroek) Congo; IRSNB, Brussels. Synonymy: Eggers 1922b: 173.

References: (tx) Eggers 1920: 124, 1922b: 173; Hagedorn 1908: 376.

brasiliensis Nunberg 1958a: 490. Holotype ♀; Sao Paulo, Brazil; Escola Nacional de Agronomia, Rio de Janeiro. Synonymy: Schedl 1960i: 107. References: (tx) Nunberg 1958a: 490; Schedl 1960i: 107, 1962j: 534.

amphicranoides Schedl 1939g: 172. Holotype ♀; Lake Vict. Nyanza; Ukerewe Island; Schedl Collection in NHMW, Wien.

Distribution: Africa (Angola/ Guinea/ Tanzania/ Zaïre).

References: (ds) Nunberg 1952: 19, 1965b: 19. (tx) Nunberg 1952: 19; Schedl 1939g: 172–173, 1948c: 665, 1962j: 564.

cavipennis Eichhoff 1878b: 404. Syntypes ♀; Africa meridionalis (Cap bonae spei), America meridionalis (Colombia); most lost with Hamburg Museum, 1 in IRSNB, Brussels.

Figures: Atkinson et al. 1986: 69, Bright 1972d: 95, Browne 1961d: 46, Pedrosa-Macedo & Schonherr 1985: 19.

Distribution: Africa (Angola/ Burundi/ Cameroon/ Congo/ Equatorial Guinea/ Ethiopia/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Malawi/ Mauritania/ Mozambique/ Namibia/ Nigeria/ Ruanda/ Senegal/ Somalia/ South Africa/ Tanzania/ Uganda/

Urumdi/ Zaire/ Zambia/ Zimbabwe), Antilles Islands (Cuba/ Guadeloupe/ Jamaica/ Puerto Rico/ Trinidad), Madagascar, North America (Honduras/ Chiapas, Veracruz, Yucatan in Mexico/ Florida in USA), South America (Brazil/ Cayenne/ Colombia/ Guayana/ Suriname/ Venezuela).

Hosts: One or more species of *Acacia*, *Acronocarpus*, *Albizzia*, *Allanblackia*, *Anthocaryon*, *Antiaris*, *Baphia*, *Beilschmiedia*, *Blighia*, *Brachystegia*, *Canarium*, *Cassia*, *Celtis*, *Chrysophyllum*, *Cleistopholis*, *Coelocaryon*, *Combretodendron*, *Cylicodiscus*, *Distemonanthus*, *Drypetes*, *Dumoria*, *Enantia*, *Eucalyptus*, *Fagara*, *Garcinia*, *Guarea*, *Hevea*, *Hymenostegia*, *Isolona*, *Jacaranda*, *Khaya*, *Klainedoxa*, *Lecaniodiscus*, *Lophira*, *Macaranga*, *Macrolobium*, *Macropsis*, *Mangifera*, *Morus*, *Myrianthus*, *Napoleana*, *Nauclea*, *Ocotea*, *Pachynolobus*, *Pachyelasma*, *Panda*, *Piptadeniastrum*, *Plagioscyphus*, *Pterygota*, *Rhizophora*, *Sarcocephalus*, *Stereulia*, *Synsepalum*, *Terminalia*, *Tessmannia*, *Trichilia*, *Tridesmostemon*, *Triplochiton*, *Turraecanthus*, *Vitus*, *Xylopia*.

References: (ay) Entwistle 1963b; Schedl, W. 1962: 369–370; Van Ryn-Tournel 1972. (bv) Entwistle 1963b; Schedl 1960f: 91. (cn) Costa Lima 1956; Equihua-Martinez 1988; Ghesquiere 1933a: 35–37, 1933b: 783–785; Mayne & Donis 1951: 333; Wood, S. L. 1977a: 72. (ec) Mayne & Donis 1951: 333; Schedl 1962j: 537. (hb) Beaver 1976a: 20; Browne 1961d: 50, 1961e: 9; Costa Lima 1956; Deyrup & Atkinson 1961d, 1961e: 9; Entwistle 1963b; Loytyniemi, Beaver, & Loytyniemi 1984; Pollet 1977; Roberts 1969: 127; Schedl 1962j: 537; Wood, S. L. 1982b: 755. (ds) Atkinson & Equihua 1955b: 236, 1988: 100; Atkinson et al. 1986: 62; Baker, W. L. 1972: 271; Beaver 1976a: 20; Blackwelder 1947: 784; Bright 1968b: 1300, 1972d: 73, 1985c: 173; Browne 1961d: 45–51, 1961e: 9, 1963a: 237, 1975a: 759, 1975b: 394, 1984b: 288; Cachian 1957: 43–53; Costa Lima 1956: 289; Deyrup & Atkinson 1987a: 65; Estrada & Atkinson 1988: 206; Ferreira 1965: 1121; Ferrer 1942; Gardner 1957a: 31; Ghesquiere 1933a: 35–37; Hagedorn 1907a: 261, 1907b: 110, 1910d: 64; Jones, Roberts, & Baker 1959: 44–55; Kleine 1912a: 212, 1913b: 133, 1914b: 314, 318, 338, 342; Lee 1971: 31; Mayne & Donis 1962: 317; Nunberg 1952: 19, 1958a: 480, 1960a: 294, 1961a: 329, 1965b: 19, 1971: 58, 1972b: 197; Pedrosa-Macedo & Schonherr 1985: 19; Pollet 1977; Roberts 1969: 127; Schedl 1959p: 19, 1960f: 39, 1961d: 178, 1962h: 60, 1962j: 537, 1963a: 31, 1963f: 58, 1964e: 69, 1964f: 618, 1965e: 353, 1965g: 20, 1965h: 112, 1966a: 275–276, 1966c: 227, 1966f: 87, 1967e: 215, 1969d: 4–11, 1970c: 83, 1971e: 5, 1971f: 148, 1971g: 192, 1972e: 283, 1972g: 44, 1972k: 295, 1973d: 157, 1975h: 350, 1975k: 277, 1976a: 54, 1977b: 203, 1977c: 394, 1979b: 416, 1982: 279; Spahr 1981; Terra 1987: 20; Wood, S. L. 1957c: 402, 1957e: 1273, 1977a: 72, 1982b: 756. (tx) Atkinson et al. 1986: 69; Blandford 1898b: 192; Bright 1968b: 1298, 1300, 1972d: 73, 95, 1985c: 173; Browne 1961d: 46, 50; Costa Lima 1956; Eggers 1920: 124, 1922: 174, 1927a: 183–184, 1932c: 35, 1933b: 9, 1943c: 64; Eichhoff 1878b: 404–405; Hagedorn 1905a: 412, 1907a: 261, 1907b: 110, 1908: 375–377, 1909a, 1910a: 99, 1910b: 1; Hopkins 1914: 128, 132; Keler 1928: 28; Nunberg 1952: 19, 1958a: 480; Pedrosa-Macedo & Schonherr 1985: 19; Powell, W. 1980: 29; Schedl 1940a: 359, 1941d: 380, 1948c: 665, 1950d: 8, 18, 1950i: 147, 1951f: 40, 1952g: 51–52, 1952j: 2, 1953d: 69, 1953g: 242, 1954d: 871, 1955c: 30, 1955d: 269, 272, 1955f: 258–259, 1957b: 151, 1957d: 84–85, 1960i: 107, 1961e: 127, 1962g: 60, 1962j: 537, 1962k: 1099, 1962m: 62, 1965j: 50–52, 1977b: 203; Terra 1987: 20; Wood, S. L. 1957c: 402, 1957e: 1273, 1977b: 210, 1982b: 756–758.

industrius Sampson 1912: 218 (*Xyleborus*). Holotype ♀; Uganda; BMNH, London. Synonymy: Schedl 1962j: 538.

References: (ds) Kleine 1913b: 161, 1914b: 324. (tx) Sampson 1912: 248.

xylocrancellus Schedl 1931c: 344 (*Xyleborus*). Holotype ♀; Brasilien; Schedl Collection in NHMW, Wien. Synonymy: Browne 1961d: 50.

References: (hb) Thompson, G. H. 1963: 61. (ds) Thompson, G. H. 1963: 61. (tx) Browne 1961d: 50; Sampson 1912: 248–249; Schedl 1931c: 344, 1954e: 57, 78, 1955d: 269, 1957d: 85, 1962j: 536, 1979c: 270.

bituberculatus Eggers 1932c: 35. Holotype ♀; Congostaut, Region de Sassa; MRCB, Tervuren. Synonymy: Schedl 1962j: 538.

References: (ds) Gardner 1957a; Nunberg 1952: 19, 1965b: 19. (tx) Eggers 1932c: 35; Nunberg 1952: 19; Schedl 1948c: 665, 1955c: 30, 1962j: 538, 1979c: 41.

laticornis Eggers 1933b: 9. Holotype ♀; Franz. Guayana (St. Jean du Maroni); MNHN, Paris. Synonymy: Wood 1977b: 210.

References: (tx) Eggers 1933b: 9; Schedl 1957d: 85; Wood, S. L. 1977b: 210.

circumcinctus Schedl 1941d: 401. Holotype ♀; Uganda; Schedl Collection in NHMW, Wien. Distribution: Africa (Uganda).

References: (tx) Schedl 1941d: 401, 1962j: 296, 1979c: 58.

circumspinitus Eggers 1924: 107. Holotype ♀; Kindu, Congogebiet; MRCB, Tervuren. Distribution: Africa (Cameroon/ Zaire).

Hosts: *Cossypium hirsutum*.
References: (bv) Schedl 1960f: 100. (cn) Ghesquiere 1933a: 33–35, 1933b: 783–785; Mayne & Donis 1951: 333. (ec) Mayne & Donis 1951: 333. (ds) Ghesquiere 1933a; Schedl 1960f: 40, 1962j: 523. (tx) Eggers 1924: 107; Schedl 1957d: 84, 1962j: 523, 1979c: 58.

circumdentatus Schedl 1938h: 461 (*Xyleborus*).

Holotype ♀; Kamerun; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1962j: 523. References: (ds) Schedl 1966c: 227. (tx) Schedl 1935h: 461–462, 1957d: 108, 1962j: 523, 1979c: 58.

corruptus (Schedl) 1962j: 564 (*Xyleborus*). Lectotype ♀; Congo Belge: Kasai, Ngombe; Schedl Collection in NHMW, Wien.

Distribution: Africa (Angola/ Zaïre).

Notes: (1) Originally named as a subspecies of *adjunctus*.

References: (ds) Schedl 1959p: 19. (tx) Eggers 1927a: 198; Schedl 1962j: 564, 1979c: 12.

corthyloides Hagedorn 1910b: 1. Holotype ♀; Kamerun; MNB, Berlin.

Distribution: Africa (Cameroon/ Ghana/ Ivory Coast).

Hosts: *Albizia gummifera*, *Cassia siamea*, *Lophira alata*.

Notes: (1) Originally named as a subspecies of *cavipennis*. Eggers 1920: 124 (elevated to species rank).

References: (hb) Roberts 1969: 127. (ds) Hagedorn 1910d: 64; Kleine 1914b: 311; Schedl 1962j: 550; Thompson, G. H. 1963: 61. (tx) Eggers 1920: 124, 1932c: 36–37; Hagedorn 1910a: 99, 1910b: 1; Schedl 1954e: 50, 66, 1957d: 85, 1962j: 550, 1972q: 262.

binodosus Nunberg 1969a: 396. Holotype ♀; Bingerville; MRCB, Tervuren. Synonymy: Schedl 1972q: 262.

References: (tx) Nunberg 1969a: 396, 398; Schedl 1972q: 262.

ivorienensis Nunberg 1969a: 398. Holotype ♀; Bingerville; MRCB, Tervuren. Synonymy: Schedl 1972q: 262.

References: (tx) Nunberg 1969a: 398; Schedl 1972q: 262.

declivis Eggers 1944b: 97. Holotype ♀; Africa, Capland; Staatl. Naturalien Coll.

Distribution: Africa (South Africa).

References: (tx) Browne 1961d: 50; Eggers 1944b: 97; Schedl 1957d: 85.

perdeclivis Schedl 1957d: 85 (*Xyleborus*). Holotype ♀; Africa, Capland; Staatl. Naturalien Coll., automatic.

Notes: Browne 1961d: 50 (an unneeded replacement name).

References: (tx) Browne 1961d: 50; Schedl 1957d: 85, 1962k: 555.

familiaris (Schedl) 1965c: 72 (*Xyleborus*). Holotype ♀; Madagascar, Perinet; Schedl Collection in NHMW, Wien.

Distribution: Madagascar.

References: (tx) Schedl 1965c: 72, 1977b: 207, 1979c: 95.

felix (Schedl) 1971g: 198 (*Xyleborus*). Holotype ♀; Guinea española, Alto Benito (Miko messeng); Inst. Espanol Ent., Madrid.

Distribution: Africa (Equatorial Guinea).

References: (tx) Schedl 1971g: 198.

hystrix (Schedl) 1957d: 108 (*Xyleborus*). Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren. Figures: Nunberg 1963b: pl. 17, figs. 2–5, Schedl 1962j: 526.

Distribution: Africa (Zaire).

Hosts: *Garcinia polyantha*.

References: (hb) Schedl 1962j: 523. (ds) Schedl 1962j: 523. (tx) Nunberg 1963b: 35, pl. 17, figs. 2–5; Schedl 1957d: 108, 1959p: 26, 1962j: 523, 526, 1979c: 120.

longus Eggers 1932c: 36. Holotype ♀; Congostaat (Haut-Uele: Yebo Moto); MRCB, Tervuren.

Distribution: Africa (Ghana/ Tanzania/ Zaïre).

Hosts: *Anthrocaryon micraster*, *Anthonotha macrophylla*, *Cassia siamea*, *Pachyelasma tessmanii*, *Paropsia schiebeniana*, *Pterocarpus soyauxii*.

References: (hb) Loytyniemi, Beaver, & Loytyniemi 1984. (ds) Beaver & Loytyniemi 1985a: 71; Thompson, G. H. 1963: 61. (tx) Browne 1961d: 50; Eggers 1932c: 36; Schedl 1954e: 50, 56, 1957d: 85, 1960i: 112.

artelongus Schedl 1957d: 85 (*Xyleborus*). Holotype ♀; Congostaat (Haut-Uele: Yebo Moto); MRCB, Tervuren, automatic.

Notes: (3) Browne 1961d: 50 (an unneeded replacement name).

References: (hb) Schedl 1962j: 536. (ds) Schedl 1962j: 536, 1972e: 283, 1972k: 295. (tx) Browne 1961d: 50; Schedl 1957d: 85, 1962j: 536.

marginatus Eggers 1932c: 37. Holotype ♀; Gabun (Lac Zonanghe); Eggers Collection, in NHMW, Wien.

Distribution: Africa (Cameroon/ Equatorial Guinea/ Fernando Poo/ Gabon/ Ghana/ Ivory Coast/ Zaïre).

Hosts: *Canarium* sp., *Paropsia schiebeniana*.

References: (tx) Browne 1961d: 50; Eggers 1932c: 36–37; Schedl 1957d: 85, 1979c: 148–149.

marginatulus Schedl 1957d: 85 (*Xyleborus*). Holotype ♀; Gabun (Lac Zonanghe); Eggers Collection, in NHMW, Wien, automatic.

Notes: (3) Browne 1961d: 50 (an unneeded replacement name).

References: (ds) Schedl 1962j: 550, 1964e: 69, 1964j: 42, 1967e: 216, 1971e: 2, 1971g: 193. (tx) Browne 1961d: 50; Schedl 1957d: 85, 1962j: 550.

minor Eggers 1927a: 183. Holotype ♀; Belg.-Congo (Haut-Uele: Iri); MRCB, Tervuren.

Distribution: Africa (Angola/ Ghana/ Ivory Coast/ Kenya/ Nigeria/ Togo/ Zaïre).

Hosts: *Rauwolfia caffra*.

References: (ds) Browne 1973a: 280. (tx) Browne 1961d: 50; Eggers 1927a: 183; Schedl 1952g: 52, 1957d: 85.

- perminor* Schedl 1957d: 85 (*Xyleborus*). Holotype ♀; Belg.-Congo (Haut-Uele: Iri); MRCB, Tervuren, automatic.
Notes: (3) Browne 1961d: 50 (an unneeded replacement name).
References: (ds) Ferreira 1965: 1124; Schedl 1959p: 21, 1962j: 555, 1964j: 42, 1965e: 355, 1972e: 284. (tx) Browne 1961d: 50; Schedl 1957d: 85, 1959p: 21, 1962j: 555.
- mukunjae* (Schedl)** 1957d: 111 (*Xyleborus*). Holotype ♀; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren.
Figures: Nunberg 1963b: pl. 20, figs. 1–4, Schedl 1962j: 552.
Distribution: Africa (Ruanda/ Zaire).
Hosts: *Alchornea hirtella*, *Entandrophragma excelsum*, *Ficus* spp., *Garcinia punctata*, *Pachystela laurentii*, *Panda oleosa*, *Pentaclethra macrophylla*, *Turraeanthus africana*.
References: (hb) Schedl 1962j: 551. (ds) Schedl 1962j: 551. (tx) Browne 1961d: 50; Nunberg 1963b: 40, pl. 20; Schedl 1957d: 85, 111, 1962j: 551–552, 1979c: 160.
- nodulosus* Hagedorn** 1908: 376. Holotype ♀; Kinchassa (Waelbroek), Congo; IRSNB, Brussels.
Distribution: Africa (Cameroon/ Equatorial Guinea/ South Africa/ Tanzania/ Uganda/ Zaire/ Zambia/ Zimbabwe).
Hosts: *Allophyllus africanus*, *Arthrosamanea altissima*, *Cynometra alexandri*, *Discoglypremia caloneura*, *Fagra macrophylla*, *Garcinia polyantha*, *Microcos pinnatifida*, *Panda oleosa*, *Pentaclethra macrophylla*, *Ricinodendron heudelotii*, *Strombosia* spp., *Turraeanthus africana*.
References: (hb) Schedl 1962j: 553. (ds) Browne 1973a: 280, 1980b: 380; Hagedorn 1910d: 64; Kleine 1914b: 314; Schedl 1962j: 553, 1964f: 618, 1966c: 228, 1967e: 218, 1971g: 193, 1972k: 296; Spahr 1981. (tx) Browne 1961d: 50; Eggers 1922: 174, 1943c: 64; Hagedorn 1908: 376, 1910a: 99; Schedl 1957d: 85, 1960i: 112, 1962j: 553.
- orientalis* Eggers** 1932c: 36. Holotype ♀; Ost-Afrika (Usaramo); Eggers Collection, in NHMW, Wien.
Distribution: Africa (Tanzania).
References: (tx) Anderson, W. H. & Anderson 1971: 23; Eggers 1932c: 36; Schedl 1957d: 85, 1962j: 555, 1979c: 181.
- perspinidens* (Schedl)** 1957d: 107 (*Xyleborus*). Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren.
Figures: Nunberg 1963b: pl. 22.
Distribution: Africa (Zaire).
Hosts: *Napoleana imperialis*.
Notes: (1) Browne 1961d: 50 (to *Prennobiis*).
References: (ds) Schedl 1962j: 558. (tx) Browne 1961d: 50; Nunberg 1963b: 44, pl. 22; Schedl 1957d: 85, 107, 1962j: 558, 1979c: 191.
- pseudohystrix* (Schedl)** 1959p: 26 (*Xyleborus*). Holotype ♀; Angola: Dundo; MRCB, Tervuren.
Distribution: Africa (Angola/ Cameroon).
References: (ds) Ferreira 1965: 1124; Schedl 1959p: 21, 26, 1964f: 6618, 1967e: 218. (tx) Schedl 1959p: 21, 26, 1962j: 528, 1979c: 201.
- quadridens* Eggers** 1927a: 183. Lectotype ♀; Ostafrika (S. Usagara); USNM, Washington, designated by Anderson & Anderson 1971: 27.
Distribution: Africa (Tanzania).
References: (tx) Anderson, W. H. & Anderson 1971: 27; Browne 1961d: 50; Eggers 1927a: 183–184; Schedl 1957d: 85, 1962j: 559, 1979c: 208.
- quadridentatus* Schedl** 1957d: 85 (*Xyleborus*). Lectotype ♀; Ostafrika (S. Usagara); USNM, Washington, designated by Anderson & Anderson 1971: 27, automatic.
Notes: Browne 1961d: 50 (an unneeded replacement name).
References: (tx) Browne 1961d: 50; Schedl 1957d: 85.
- quadrispinosus* Schedl** 1938h: 461. Holotype ♀; Kongo; Schedl Collection in NHMW, Wien.
Figures: Schedl 1962j: 557.
Distribution: Africa (Ghana/ Ivory Coast/ Zaire).
Hosts: *Albizzia gummiifera*, *Canthium dewevrei*, *Hevea brasiliensis*, *Hydrodendron gabunense*, *Macrobium* sp., *Microcos coriacea*, *Musanga cercropioides*, *Oxystegma oxyphyllum*, *Parinari* sp., *Terminalia superba*, *Trichilia lanata*, *Tridesmostemon claessensii*, *Turraeanthus africana*.
References: (tx) Browne 1961d: 50; Schedl 1938h: 461, 1957d: 85, 107, 1960p: 112, 1963j: 481, 1979c: 208.
- joveri* Schedl** 1951f: 41 (*Xyleborus*). Lectotype ♀; Cote d'Ivoire, Languedou; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 130. Synonymy: Schedl 1962j: 556.
References: (ds) Browne 1961c: 14; Schedl 1964e: 69. (tx) Browne 1961d: 50, 1962g: 79; Schedl 1951f: 41, 1954d: 872, 1962j: 556, 1963j: 480, 1979c: 130.
- perquadrispinosus* Schedl** 1957d: 85 (*Xyleborus*). Holotype ♀; Kongo; Schedl Collection in NHMW, Wien, automatic.
Notes: (3) Browne 1961d: 50 (an unneeded replacement name).
References: (hb) Schedl 1962j: 556. (ds) Schedl 1962j: 556. (tx) Browne 1961d: 50; Schedl 1957d: 85, 1962j: 556–557.
- robustus* (Schedl)** 1957d: 112 (*Xyleborus*). Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren.
Distribution: Africa (Zaire).
Hosts: *Antrocaryon micraster*, *Beilschmiedia corbisieri*, *Canthium dewevrei*, *Hevea brasiliensis*, *Parinari* sp., *Pterocarpus soyauxii*.
References: (hb) Schedl 1962j: 559. (ds) Schedl

1962j: 559, 1967e: 218. (**tx**) Browne 1961d: 50; Schedl 1957d: 112, 1962j: 559–560, 1979c: 212.

sexnotatus (Schedl) 1970e: 95 (*Xyleborus*). Holotype ♀; Nied, Guayana, Para Dist.; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil/ Suriname).

Notes: (3) An obvious introduction from Africa (near *hystrix*).

References: (**ds**) Schedl 1973d: 159. (**tx**) Schedl 1970e: 95–96, 1979c: 227.

sexspinosus Eggers 1924: 107. Holotype ♀; Bukama and Tshikapa (Congostaat); MRCB, Tervuren.

Distribution: Africa (Congo/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Nigeria/ Tanzania/ Togo/ Uganda/ Zaire/ Zambia).

Hosts: *Albizzia* spp., *Bussea occidentalis*, *Carapa procera*, *Casuarina* sp., *Celtis* spp., *Craterispermum* sp., *Entandrophragma angolense*, *Ficus* spp., *Macaranga* sp., *Macrolobium* sp., *Pterocarpus soyaurii*, *Sarcocephalus* sp.

Notes: (3) Schedl 1962k: 1103 (described male).

References: (**cn**) Ghesquiere 1933a: 33–36, 1933b: 777–783; Ishikura 1966; Mayne & Donis 1951: 333. (**cc**) Mayne & Donis 1951: 333. (**hb**) Beaver & Loytyniemi 1955a: 72; Browne 1963a: 237; Loytyniemi, Beaver, & Loytyniemi 1984; Roberts 1969: 128; Schedl 1962j: 560. (**ds**) Beaver & Loytyniemi 1955a: 72; Browne 1963a: 237; Ghesquiere 1933a; Ishikura 1966; Schedl 1964e: 69, 1960f: 40, 1962h: 61, 1962j: 560, 1966a: 276, 1972g: 284. (**tx**) Eggers 1924: 107; Schedl 1957d: 85, 1962h: 61, 1962j: 560, 1962k: 1103, 1979c: 227.

spinifer Eggers 1927a: 182. Holotype ♀; Luebo, Congogebiet; USNM, Washington.

Distribution: Africa (Angola/ South Africa/ Zaire).

References: (**ds**) Schedl 1965e: 356, 1975k: 278, 1977c: 395, 1982: 279. (**tx**) Anderson, W. H. & Anderson 1971: 31; Browne 1961d: 50; Eggers 1927a: 182; Schedl 1957d: 85, 1979c: 235.

perspinifer Schedl 1957d: 85 (*Xyleborus*). Holotype ♀; Congogebiet; USNM, Washington, automatic.

Notes: (3) Browne 1961d: 50 (an unneeded replacement name).

References: (**tx**) Browne 1961d: 50; Schedl 1957d: 85, 1962j: 559.

Genus *Sampsonius* Eggers

SAMPSONIUS EGGERS 1935a: 157. Type-species: *Sampsonius sexdentatus* Eggers, original designation.

Keys: Wood 1982b: 759 for Central America, Nunberg 1963c: 105, Bright 1991c: 14.

Notes: (3) Eggers 1933b: 23 (used generic name as a nomen nudum). Species of this genus are domicile parasites of other Xyleborini.

References: (**hb**) Wood, S. L. 1982b: 758, 1986a: 82. (**ds**) Wood, S. L. 1982b: 758, 1986a: 82. (**tx**)

Bright 1991c: 12; Eggers 1933b: 23, 1935a: 157–158; Nunberg 1963c: 105; Wood, S. L. 1982b: 758, 1986a: 82.

alvarengai Bright 1991c: 15. Holotype ♀; Vera, M. Grosso, Brazil; CNCI, Ottawa.

Figures: Bright 1991c: 13 (declivity).

Distribution: South America (Brazil).

References: (**tx**) Bright 1991c: 15.

buculus Schedl 1937d: 170. Holotype ♀; Nova Teutonia, Brasilien; Schedl Collection in NHMW, Wien.

Figures: Bright 1991c: 13 (declivity).

Distribution: South America (Brazil).

References: (**ds**) Blackwelder 1947: 780; Schedl 1973d: 163. (**tx**) Bright 1991c: 22; Schedl 1937d: 170, 1979c: 49.

conifer (Hagedorn) 1905: 549 (*Xyleborus*). Holotype ♀; Riviere Lunier Guyanae; MNHN, Paris.

Figures: Bright 1991c: 13 (declivity).

Distribution: South America (Cayenne).

References: (**ds**) Blackwelder 1947: 780; Hagedorn 1910d: 100; Kleine 1913b: 160, 1914b: 339; Menier 1971: 20. (**tx**) Bright 1991c: 16; Eggers 1933b: 24, 1935a: 158; Hagedorn 1905 (1903b): 549, 1910a: 153.

dampfi Schedl 1940a: 359. Lectotype ♀; Chiapas, Mexico; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 75.

Figures: Bright 1991c: 13, Nunberg 1963c: 102, Terra 1987: 23, Wood 1982b: 760.

Distribution: Antilles Islands (Trinidad), North America (Costa Rica/ Honduras/ Chiapas, Veracruz in Mexico/ Panama), South America (Brazil/ Cayenne/ Colombia/ Venezuela).

Hosts: *Ochroma* sp., *Qualea wittrockii*, *Theobroma cacao*, *Vismia* sp.

Notes: (3) This is a domicile parasite of *Dryocoetoides capucinus*.

References: (**hb**) Beaver 1976a: 21; Wood, S. L. 1982b: 761. (**ds**) Beaver 1976a: 21; Blackwelder 1947: 780; Ferrer 1942; Pedrosa-Macedo & Schonherr 1985: 20; Schedl 1963f: 63, 1966f: 87, 1972g: 46, 1973d: 156, 1976a: 55; Terra 1987: 20; Wood, S. L. 1982b: 761. (**tx**) Bright 1991c: 24; Pedrosa-Macedo & Schonherr 1985: 20; Schedl 1940a: 359, 1951m: 71–73, 1969f: 554, 1979c: 75; Terra 1987: 20, 23; Wood, S. L. 1982b: 761.

costaricensis Nunberg 1963c: 104. Lectotype ♀; Finca La Lola, Limon, Costa Rica; University of Wisconsin Collection, Madison, designated by Wood 1982b: 761. Synonymy: Schedl 1969f: 554.

References: (**tx**) Nunberg 1963c: 102, 104; Schedl 1969f: 554; Wood, S. L. 1982b: 761.

detractus Wood 1974a: 31. Holotype ♀; Madden Forest, Canal Zone, Panama; Wood Collection.

Figures: Bright 1991c: 13, Wood 1982b: 760.

Distribution: North America (Panama), South America (Brazil).

- References: (ds) Bright 1991c: 18; Wood, S. L. 1982b: 759. (tx) Bright 1991c: 18; Wood, S. L. 1974a: 31, 1982b: 759.
- expulsus** Wood 1974a: 31. Holotype ♀; 8 km S Colonia (near Buenaventura), Valle de Cauca, Colombia; Wood Collection.
Distribution: South America (Colombia).
Hosts: *Pouteria* sp.
References: (tx) Bright 1991c: 18; Wood, S. L. 1974a: 31.
- mexicanus** Bright 1991c: 21. Holotype ♀; 10 miles NW Sontecomapan, Veracruz, Mexico; CNCI, Ottawa.
Figures: Bright 1991c: 13 (declivity).
Distribution: North America (Veracruz in Mexico).
References: (tx) Bright 1991c: 21.
- obtusicornis** Schedl 1976a: 78. Holotype ♀; Brasilien, Filtro; Schedl Collection in NHMW, Wien.
Figures: Bright 1991c: 13 (declivity).
Distribution: South America (Brazil).
References: (tx) Bright 1991c: 25; Schedl 1976a: 78.
- pennatus** Schedl 1973d: 171. Holotype ♀; Brasilien, Guanabara, Represa Rio Grande; MZUSP, Sao Paulo.
Figures: Bright 1991c: 13 (declivity).
Distribution: South America (Brazil).
References: (tx) Bright 1991c: 20; Schedl 1973d: 171, 1979c: 187.
- quadrispinosus** Eggers 1935a: 158. Holotype ♀; Bolivien, Cochabamba; Eggers Collection, in NHMW, Wien.
Figures: Bright 1991c: 13 (declivity).
Distribution: South America (Bolivia).
References: (ds) Blackwelder 1947: 781. (tx) Bright 1991c: 21; Eggers 1935a: 158–159, 1979c: 208.
- reticulatus** Bright 1972a: 1369. Holotype ♀; Dos Amates, Veracruz, Mexico; CNCI, Ottawa.
Figures: Bright 1972a: 1370, 1991c: 13 (antenna, declivity).
Distribution: North America (Veracruz in Mexico).
References: (ds) Wood, S. L. 1982b: 760. (tx) Bright 1972a: 1369–1370, 1991c: 19; McNamara 1977: 199; Wood, S. L. 1982b: 760.
- sexdentatus** Eggers 1933b: 23. Holotype ♀; French Guiana (Gourdonville); MNHN, Paris.
Figures: Bright 1991c: 13 (declivity).
Distribution: South America (Cayenne).
References: (ds) Blackwelder 1947: 781. (tx) Bright 1991c: 17; Eggers 1933b: 23–24, 1935a: 158.
- sulcatus** Bright 1981c: 163. Holotype ♀; Trinidad; CNCI, Ottawa.
Figures: Bright 1991c: 13 (declivity).
Distribution: Antilles Islands (Trinidad). Apparently in Peru (?).
References: (tx) Bright 1981c: 163, 1991c: 26.
- usurpatus** Wood 1974a: 32. Holotype ♀; Turrialba, Cartago, Costa Rica; Wood Collection.
Figures: Bright 1991c: 13, Wood 1982b: 760.
Distribution: North America (Costa Rica/Panama).
References: (hb) Wood, S. L. 1982b: 761. (ds) Wood, S. L. 1982b: 761. (tx) Bright 1991c: 23; McNamara 1984: 759; Wood, S. L. 1974a: 32, 1982b: 761.

Genus *Dryocoetoides* Hopkins

- DRYOCOETOIDES HOPKINS 1915b: 52. Type-species: *Dryocoetoides guatemalensis* Hopkins = *Xyleborus capucinus* Eichhoff, original designation.
Keys: Wood 1982b: 762 for Central American species.
References: (tx) Hopkins 1915b: 10, 52; Schedl 1952k: 161; Wood, S. L. 1974a: 28, 1982b: 762–764, 1986: 82.
- alter** (Eggers) 1931a: 22 (*Xyleborus*). Holotype ♀; Brasil; USNM, Washington.
Figures: Pedrosa-Macedo & Schonherr 1985: 24.
Distribution: South America (Brazil).
Notes: (3) Schedl 1950i: 179 (described male).
References: (ds) Blackwelder 1947; Wood, S. L. 1982b: 762. (tx) Anderson, W. H. & Anderson 1971: 3; Eggers 1931a: 22, 1933b: 29; Pedrosa-Macedo & Schonherr 1985: 24; Schedl 1950i: 147, 179, 1979c: 16; Wood, S. L. 1982b: 762.
- asperulus** (Eggers) 1931a: 21 (*Xyleborus*). Holotype ♀; Mexico; MNB, Berlin [Schedl 1979c: 28 gives NHMW, Wien].
Distribution: North America (Costa Rica/“Mexico”), South America (Brazil).
References: (ds) Blackwelder 1947: 779; Ferrer 1942. (tx) Eggers 1931a: 21–22, 1933d: 29; Schedl 1940a: 361, 1979c: 28.
- imitator** Schedl 1976a: 75 (*Xyleborus*). Holotype ♀; Barueri, Sao Paulo, Brazil; Schedl Collection in NHMW, Wien. Synonymy: Wood 1992: (in press).
References: (tx) Schedl 1976a: 75; Wood, S. L. 1992: (in press).
- capucinus** (Eichhoff) 1869b: 281 (*Xyleborus*). Holotype ♀; Guadeloupe Island; IRSNB, Brussels.
Figures: Atkinson & Equihua 1988: 93, Blandford 1898b: pl. 7, Nunberg 1963b: pl. 8, figs. 1–4.
Distribution: Antilles Islands (Guadeloupe/Dominican Republic in Hispanola/ Jamaica), North America (Costa Rica/ Guatemala/ Michoacan, Nayarit, Veracruz in Mexico/ Panama), South America (Brazil/ Colombia/ Guyana/ Peru/ Venezuela).
Hosts: *Inga* sp., *Miconia* sp., etc.
References: (hb) Atkinson & Equihua 1985b: 236. (ds) Atkinson & Equihua 1985b: 236, 1986a: 421, 1988: 90; Blackwelder 1947: 779; Blandford 1898b: 203; Bright 1981c: 154, 1985c: 173; Gemminger & Harold 1872: 2685; Hagedorn 1903b:

546, 1910d: 99; Kleine 1913b: 160, 1914b: 337, 339, 371, 379; Wood, S. L. 1952b: 763. (tx) Atkinson & Equihua 1988: 93; Blandford 1897b: 203; Bright 1955c: 173; Eggers 1931a: 22, 1932d: 298, 1933b: 2, 1940a: 108, 1941a: 104; Eichhoff 1869b: 281, 1878b: 332; Hagedorn 1903b: 546, 1908, 1910a: 152; Numberg 1963b: 21–22; Sampson 1912: 246; Wichmann 1914a: 413; Wood, S. L. 1966b: 31, 1972e: 196, 1973c: 187, 1974a: 28, 1982b: 763.

rufithorax Eichhoff 1869b: 281 (*Xyleborus*).

Holotype ♀; Brazil; IRSNB, Brussels. Synonymy: Wood 1966b: 31.

References: (ds) Blackwelder 1947: 780; Gemminger & Harold 1872: 2686; Hagedorn 1903b: 546, 1910d: 110; Kleine 1913b: 162. (tx) Eggers 1923a: 181, 1931a: 22–23, 1932d: 298, 1933b: 2; Eichhoff 1869b: 280–281, 1875: 202, 1878b: 333; Hagedorn 1903b: 546, 1905a: 412, 1910a: 156; Numberg 1959a: 437; Schedl 1940a: 361; Wood, S. L. 1973c: 187.

guatemalensis Hopkins 1915b: 52. Holotype ♀; Livingston, Guatemala; USNM, Washington. Synonymy: Wood 1966b: 31.

References: (hb) Kalshoven 1963. (ds) Blackwelder 1947: 779; Kalshoven 1963. (tx) Hopkins 1915b: 52; Numberg 1963b: 21; Schedl 1952k: 161; Wood, S. L. 1966b: 31.

capucinoide Eggers 1941a: 104 (*Xyleborus*). Holotype ♀; Goubeyre, Guadeloupe Island; USNM, Washington. Synonymy: Wood 1966b: 31.

References: (tx) Anderson, W. H. & Anderson 1971: 9; Eggers 1941a: 104, 108; Schedl 1979c: 52; Wood, S. L. 1966b: 31, 1972e: 196.

caracicolai Hopkins 1915b: 53. Holotype ♀; Port of Spain, Trinidad; USNM, Washington. Distribution: Antilles Islands (Trinidad).

References: (ds) Blackwelder 1947: 778. (tx) Hopkins 1915b: 52–53.

cristatus (Fabricius) 1801: 389 (*Bostrichus*). Holotype ♀; type labeled Essiquibo [Guyana], published as America meridionali; UZMC, Copenhagen. Figures: Schedl 1962j: 290.

Distribution: Africa (introduced: Angola/ Cameroon/ Congo/ Fernando Poo/ Gabon/ Ghana/ Ivory Coast/ Nigeria/ Sao Tome Island/ Zaire), Antilles Islands (Trinidad), South America (Brazil/ Cayenne/ Guyana/ Venezuela).

Hosts: *Alexa imperatricia*, *Brownia* sp., *Cassia fistula*, *Hymenostegia afzelii*, *Sterculia* sp., *Theobroma cacao*. Schedl 1962j: 289 lists others.

References: (hb) Beaver 1976a: 16. (ds) Beaver 1976a: 16; Browne 1965: 188; Gemminger & Harold 1872: 2690; Hagedorn 1910d: 52; Kleine 1913b: 127; Roberts 1969: 131; Schedl 1965e: 354, 1966c: 227, 1970f: 581, 1971g: 193, 1972e: 283, 1972g: 44, 1973d: 157, 1976a: 54, 1977d: 279, 1978c: 291. (tx) Fabricius 1801: 384, 389; Ferrari 1867a: 65; Hagedorn 1910a: 104; Schedl 1962j: 318, 1964k: 217; Wood, S. L. 1974a: 28.

solitarius Hagedorn 1905: 415 (*Xyleborus*). Holotype ♀; Camopi, Guyanae; MNHN, Paris (?). Synonymy: Wood 1974a: 28.

References: (hb) Browne 1963a: 244; Schedl 1961j: 289. (ds) Blackwelder 1947: 780; Browne 1963a: 244; Chesquiere 1933a: 31, 36, 1933b: 781, 786; Kleine 1928: 307; Mayne & Donis 1962: 322; Nonveiller 1984: 42; Pedrosa-Macedo & Schonherr 1985: 40; Schedl 1962j: 289, 1964f: 618, 1966f: 90; Thompson, G. H. 1963: 73; Wichmann 1954: 521. (tx) Eggers 1922b: 174, 1927a: 199, 1933b: 2, 29, 35; Hagedorn 1904: 546, 1905: 415; Pedrosa-Macedo & Schonherr 1985: 40; Sampson 1912: 245–246; Schedl 1939j: 565, 1942a: 189, 1948f: 268–269, 1950i: 178, 1952k: 52, 161, 1953g: 243, 1954d: 873, 1954e: 54, 1957d: 84, 1962j: 289–293, 1979c: 232; Wood, S. L. 1974a: 28.

urichii Sampson 1912: 245 (*Xyleborus*). Holotype ♀; Trinidad; BMNH, London. Synonymy: Wood 1974a: 28.

References: (ds) Cotterell 1927: 98–112; Kleine 1913b: 163, 1914b: 344. (tx) Eggers 1922b: 174, 1927a: 199, 1933b: 2, 29; Sampson 1912: 245; Schedl 1962j: 289; Wood, S. L. 1974a: 28.

crenatus Eggers 1920: 42 (*Xyleborus*). Lectotype ♀; Kangu; USNM, Washington, designated by Anderson & Anderson 1971: 10. Synonymy: Wood 1974a: 28.

References: (tx) Anderson, W. H. & Anderson 1971: 10; Eggers 1920: 42–43, 1922b: 174, 1927a: 199, 1933b: 2, 29; Schedl 1962j: 289, 1979c: 68; Wood, S. L. 1974a: 28.

flavus (Fabricius) 1801: 394 (*Hylesinus*). Syntypes 2♂, 2♀; types labeled Essiquibo [Guyana], published as America meridionali; UZMC, Copenhagen.

Distribution: South America (Brazil/ Guyana/ Venezuela).

Hosts: *Qualea ingens*, *Theobroma cacao*, *Xylopia sericea*.

Notes: (1) Wood 1974a: 28 (to *Dryocoetoides*).

References: (hb) Beaver 1976a: 17. (ds) Beaver 1976a: 17. (tx) Eggers 1929e: 43, 1934b: 27–29; Fabricius 1801: 394; Schedl 1950i: 147, 178, 1952k: 161, 1954b: 45; Wood, S. L. 1974a: 28.

granulicauda (Eggers) 1931a: 22 (*Xyleborus*). Holotype ♀; Franzos, Guyana (Comopi); Hamburg Museum, lost, cotype in Eggers Collection, in NIIMW, Wien.

Distribution: South America (Cayenne/ Suriname/ Venezuela).

References: (ds) Blackwelder 1947: 779; Schedl 1970f: 582. (tx) Eggers 1931a: 22, 1933b: 2–3, 1941a: 104; Schedl 1933: 3, 1979c: 111.

rufithorax nigricollis Hagedorn 1905b: 2 (*Xyleborus*). Holotype ♀; Camopi Guyanae; MNHN, Paris? Synonymy: Eggers 1933b: 3.

References: (tx) Eggers 1931b: 1–3, 1933b: 3; Hagedorn 1905b: 2.

inaffectatus (Schedl) 1972g: 71 (*Xyleborus*). Holotype ♀; Brasilien, Represa, Rio Grande, Guanabara; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1972g: 71, 1979c: 123.

indolatus Wood 1974a: 31. Holotype ♀; 30 km E Palmar, Bolivar, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Parinari excelsa*.

References: (tx) Wood, S. L. 1974a: 31.

insculptus Wood 1974a: 30. Holotype ♀; 8 km S Colonia (near Buenaventura), Valle de Cauca, Colombia; Wood Collection.

Distribution: South America (Colombia).

Hosts: *Humistrum excelsum*.

References: (tx) Wood, S. L. 1974a: 30.

maronicus (Eggers) 1933b: 35 (*Xyleborus*). Holotype ♀; Franz, Guyana (Charvein); MNHN, Paris.

Distribution: South America (Cayenne).

References: (ds) Blackwelder 1947: 780. (tx) Eggers 1933b: 35–36, 1934b: 27–29; Schedl 1950i: 178.

monachus (Blandford) 1898: 204 (*Xyleborus*). Lectotype ♂; Cerro Zunil, Guatemala; BMNH, London, designated by Wood 1982b: 764.

Distribution: North America (Guatemala/ Chiapas, Veracruz in Mexico), South America (Colombia/ Venezuela).

Hosts: *Inga* sp., *Tabebuia* sp.

Notes: (1) Wood 1974a: 28 (to *Dryocoetoides*).

References: (ds) Blackwelder 1947: 780; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 371; Wood, S. L. 1982b: 764. (tx) Blandford 1898: 204; Hagedorn 1910a: 155; Wood, S. L. 1974a: 28, 1982b: 764.

obtusitruncatus (Schedl) 1948f: 271 (*Xyleborus*). Lectotype ♀; Brazil, Nova Teutonia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 176.

Distribution: South America (Brazil).

References: (ds) Pedrosa-Macedo & Schonherr 1985: 34. (tx) Pedrosa-Macedo & Schonherr 1985: 34; de Ruette 1970: 115; Schedl 1948f: 271, 1979c: 176.

paradoxus (Schedl) 1972g: 71 (*Xyleborus*). Holotype ♀; Brasilien, Jacarecanga, Para; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1972g: 71, 1979c: 184.

solitariipennis Schedl 1976a: 77 (*Xyleborus*).

Holotype ♀; Maturaca AM, alto Rio Canaburi; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 172.

References: (tx) Schedl 1976a: 77; Wood, S. L. 1989: 172.

pileatus Wood 1974a: 29. Holotype ♀; 40 km SE Socopo, Barinas, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Inga* sp.

References: (tx) Wood, S. L. 1974a: 29.

pseudosolitarius (Eggers) 1933b: 28 (*Xyleborus*). Holotype ♀; Franz, Guyana (Cayenne); MNHN, Paris.

Distribution: Antilles Islands (Dominican Republic/ Puerto Rico), South America (Brazil/ Cayenne/ Venezuela).

Hosts: *Cassia fistula*, *Eucalyptus excelsum*, *Gleditsia* sp., *Hirtella glandulosa*, *Inga vera*.

Notes: (3) Schedl 1950i: 179 (described male).

References: (hb) Beaver 1976a: 17. (ds) Beaver 1976a: 17; Blackwelder 1947: 780; Schedl 1973d: 159, 1976a: 55. (tx) Eggers 1933b: 2, 28–29, 33, 35; Schedl 1950i: 179; Wood, S. L. 1974a: 28, 1989: 172.

pseudosolitarius schizolobius Schedl 1950: 179 (*Xyleborus*). Lectotype ♀; Brazil, Rio Claro; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 202. Synonymy: Wood 1989: 172.

References: (tx) Schedl 1950i: 179, 1979c: 202; Wood, S. L. 1989: 172.

rusticus Wood 1974a: 30. Holotype ♀; 30 km E Palmar, Bolivar, Venezuela; Wood Collection.

Distribution: South America (Brazil/ Venezuela).

Hosts: *Hirtella* sp., *Pouteria* sp.

References: (hb) Beaver 1976a: 17. (ds) Beaver 1976a: 17. (tx) Wood, S. L. 1974a: 30.

semicostatus (Schedl) 1948f: 268 (*Xyleborus*). Holotype ♀; Brasil, Corumba, Alto Paraguay; Schedl Collection, in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1948f: 268–269, 1979c: 224.

severus Wood 1974a: 30. Holotype ♀; 30 km E Palmar, Bolivar, Venezuela; Wood Collection.

Distribution: South America (Brazil/ Venezuela).

Hosts: *Eschweilera subglandulosa*, *Pouteria* sp., *Pseudobmedia laevigata*.

References: (tx) Wood, S. L. 1974a: 30.

solitariformis (Schedl) 1976g: 77 (*Xyleborus*). Holotype ♀; Xingu, Mato Grosso, Brazil; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1976g: 77.

solitarinus (Schedl) 1950i: 178 (*Xyleborus*). Lectotype ♀; Brazil, Rio Claro; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 232.

Distribution: South America (Brazil).

Hosts: *Eucalyptus* sp.

References: (ds) Schedl 1966f: 90, 1967d: 3, 1972g: 45, 1973d: 159, 1976a: 55. (tx) Schedl 1939j: 565, 1950i: 178, 1979c: 232.

truncatellus (Schedl) 1948f: 272 (*Xyleborus*). Syn-types ♀; Brazil, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection.

Figures: Pedrosa-Macedo & Schonherr 1985: 43.
Distribution: South America (Brazil).

Notes: (1) Schedl 1979c: 257 (citation of holotype invalid).

References: (**ds**) Pedrosa-Macedo & Schonherr 1985: 43; Schedl 1967d: 4. (**tx**) Pedrosa-Macedo & Schonherr 1985: 43; de Ruelle 1970: 115; Schedl 1948f: 272, 1950i: 147, 1979c: 256.

velutinus Wood 1974a: 29. Holotype ♀; 30 km E Palmar, Bolivar, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: Pandanga.

References: (**tx**) Wood, S. L. 1974a: 29.

verrucosus Wood 1974a: 28. Holotype ♀; 30 km E Palmar, Bolivar, Venezuela; Wood Collection.

Distribution: South America (Venezuela).

Hosts: *Inga* sp., Rosada (Moraceae).

References: (**tx**) Wood, S. L. 1974a: 28.

vexans (Schedl) 1972g: 72 (*Xyleborus*). Holotype ♀; Brasilien, S. Caraca, S. Barbara, M. Gerais, 1450 m; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (**tx**) Schedl 1972g: 72, 1979c: 266.

Genus *Leptoxyleborus* Wood

LEPTOXYLEBORUS WOOD 1980c: 94. Type-species: *Phloeotrogus sordicauda* Motschulsky, original designation.

References: (**hb**) Wood, S. L. 1986a: 82. (**ds**) Wood, S. L. 1986a: 82. (**tx**) Wood, S. L. 1980c: 94, 1986a: 82.

ceramensis (Schedl) 1937e: 549 (*Xyleborus*). Holotype ♀; Ceram [Moluccas Islands]; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Moluccas Islands).

References: (**tx**) Schedl 1937e: 549, 1979c: 55.

concisus (Blandford) 1894d: 107 (*Xyleborus*). Holotype ♀; Japan [type without locality data]; BMNH, London.

Figures: Nobuchi 1978a:pl. 2.

Distribution: Asia (Burma/ Andaman Islands, Assam, Bengal in India/ Japan/ Malaya/ Sri Lanka/ Taiwan), Indonesia (Borneo, Java, Sumatra), Philippine Islands.

Hosts: *Acrocarpus* spp., *Albizzia* sp., *Amoora wallichii*, *Anthocephalus* sp., *Artocarpus chaplasha*, *A. elastica*, *A. spp.*, *Balanocarpus heimii*, *Calamus* sp., *Canarium* sp., *Chisocheton glomeratus*, *Cinchona* sp., *Daemonorops* sp., *Dipterocarpus baudii*, *D. kunstleri*, *D. sp.*, *Endospermum malaccense*, *Fagara* sp., *Fagraea gigantea*, *Ficus* sp., *Homalanthus* sp., *Hopea ferrea*, *Nipa* sp., *Parinari* sp., *Pasania sundaica*, *P. sp.*, *Phoenix paludosa*, *Pterocarpus* sp., *Quercus* sp., *Saraca* sp., *Scaphium* sp., *Shiia* sp., *Shorea leprosula*, *S. ovalis*, *Sloetia elongata*, *Tectona grandis*, *Terminalia bialata*, *T. procera*, *Toonia sinensis*, *Xanthophyllum* spp., *Xylia xylocarpa*.

References: (**hb**) Beaver & Browne 1978: 606;

Browne 1961c: 136; Kalshoven 1959e: 146. (**ds**) Beaver & Browne 1978: 606; Blandford 1894c: 579; Browne 1961a: 305, 1961c: 136–137; Hagedorn 1910d: 100; Kalshoven 1959c: 146; Kleine 1913b: 160, 1914b: 260; Murayama 1936a: 131, 1954b: 203; Nobuchi 1978a: 27; Ohno, Yoneyama, & Nakazawa 1982b: 8, 1987: 94; Ohno et al. 1987: 88, 1989: 61; Schedl 1961f: 93, 1965g: 22, 1966b: 49, 1969a: 204. (**tx**) Blandford 1894d: 107; Browne 1955: 354; Hagedorn 1910a: 153; Murayama 1934c: 299, 1936a: 131–132, 1954b: 203, 1955: 100; Nobuchi 1978a:pl. 2, 1983: 302; Schedl 1934f: 1646, 1961f: 93, 1965g: 22, 1979c: 61.

sordicaudulus Eggers 1927c: 91 (*Xyleborus*). Lectotype ♀; Philippinen: Palawan, Binaluan; USNM, Washington, designated by Anderson & Anderson 1971: 30. Synonymy: Browne 1955: 354.

References: (**cn**) Mathur & Singh 1961b: 97. (**ds**) Beeson 1930; Kleine 1934a: 175; Mathur & Singh 1961b: 97; Nunberg 1961b: 611; Schedl 1936j: 19. (**tx**) Anderson, W. H. & Anderson 1971: 30; Beeson 1930: 84, 260; Browne 1955: 354; Eggers 1927c: 91–92, 1930d: 198; Schedl 1939e: 331, 1942a: 171, 1942d: 5, 30, 1951i: 51, 1979c: 232.

marginatus Eggers 1927c: 91 (*Xyleborus*). Holotype ♀; Philippinen: Mindoro, Subaan; USNM, Washington. Synonymy: Browne 1955: 354.

Notes: (1) Schedl 1979c: 149 (invalid holotype designation, based on an Eggers cotype).

References: (**cn**) Yunus & Hua 1980: 230. (**ds**) Schedl 1936d: 4, 1936j: 20, 1971a: 281; Yunus & Hua 1980: 230. (**tx**) Anderson, W. H. & Anderson 1971: 19; Browne 1955: 354; Eggers 1927c: 91–92, 1930d: 197–198; Schedl 1939e: 331, 1942a: 171, 1951i: 41, 43, 51, 1954a: 142, 1958k: 145, 1979c: 149.

incurvus Eggers 1930d: 197 (*Xyleborus*). Holotype ♀; Bengal: Government Cinchona Plantation, Mungpoo; FRI, Dehra Dun. Synonymy: Wood 1989: 175.

References: (**cn**) Mathur & Singh 1961a: 75, 1961b: 14; Roonwal 1954: 33. (**ds**) Beeson 1930, 1961: 305; Kleine 1934a: 173; Lepesme et al. 1948: 648; Mathur & Singh 1961a: 75, 1961b: 14; Roonwal 1954: 33. (**tx**) Beeson 1930: 62–63; Eggers 1930d: 197–198; Wood, S. L. 1989: 175.

sordicaudulus peguensis Eggers 1930d: 198 (*Xyleborus*). Holotype ♀; Burma (North Pegu Division); FRI, Dehra Dun. Synonymy: Schedl 1951i: 51.

References: (**cn**) Mathur & Singh 1961b: 97. (**hb**) Browne 1936a, 1955: 354. (**ds**) Beeson 1930; Browne 1936a; Kleine 1934a: 175; Mathur & Singh 1961b: 97; Schedl 1936j: 20, 1951i: 51, 1960i: 112. (**tx**) Beeson 1930: 84, 260; Browne 1955: 354; Eggers 1927c: 91, 1930d: 198; Schedl 1951i: 51.

depressus (Eggers) 1923a: 190 (*Xyleborus*). Holotype ♀; Sumatra; Eggers Collection, in NHMW, Wien.

Distribution: Asia (Malaya), Indonesia (Borneo, Sumatra).

Hosts: *Castanopsis* sp., *Elacocarpus ferrugineus*, *E. jackianus*, *Shorea uliginosa*.

References: (hb) Browne 1961c: 137. (ds) Browne 1961c: 137. (tx) Eggers 1923a: 189–190; Schedl 1979c: 78.

sejugatus Schedl 1942a: 188 (*Xyleborus*). Holotype ♀; Malaya, Perak, Trolak F. R.; BMNH, London. Synonymy: Wood 1989: 175.

References: (ds) Browne 1961c: 138, 1981b: 599; Ohno et al. 1988a: 94; Schedl 1971c: 370. (tx) Schedl 1942a: 188.

novus (Eggers) 1923a: 190 (*Xyleborus*). Lectotype ♀; Mentawai (Sipora); USNM, Washington, designated by Anderson & Anderson 1971: 22.

Distribution: Indonesia (Mentawai).

References: (tx) Anderson, W. H. & Anderson 1971: 22; Eggers 1923a: 190.

puer (Eggers) 1923a: 191 (*Xyleborus*). Syntypes ♀; Mentawai: MCG, Genova, Eggers Collection (USNM, Washington or NHMW, Wien?), MNB, Berlin.

Distribution: Asia (Malaya), Indonesia (Borneo, Mentawai), New Guinea.

Hosts: *Iutsia palembanica*, *Shorea* sp.

References: (hb) Browne 1961c: 135. (ds) Browne 1961a: 306, 1961c: 135, 1965a: 189; Schedl 1964c: 305, 1965g: 24. (tx) Eggers 1923a: 191; Schedl 1940b: 435, 1979c: 203.

punctatissimus (Eichhoff) 1880a: 189 (*Xyleborus*). Syntypes 2 ♀; Alahan pandjang, Sumatra; RNH, Leiden.

Figures: Nobuchi 1978a: pl. 2.

Distribution: Asia (India/ Malaya), Indonesia (Borneo, Java, Sumatra).

Hosts: *Symplocos* sp., *Xanthophyllum* sp.

References: (hb) Browne 1961c: 135; Kalshoven 1959c: 137. (ds) Beaver & Browne 1978: 612; Browne 1961c: 135; Hagedorn 1910d: 109; Kalshoven 1959c: 137; Kleine 1913b: 162, 1914b: 268, 289; Nobuchi 1978a: 23; Schedl 1965g: 22, 1969a: 208, 1971f: 149. (tx) Eggers 1923a: 190–191, 1927b: 407; Eichhoff 1880a: 189; Hagedorn 1910a: 156; Kalshoven 1959b: 95, 1960d; Nobuchi 1978a: pl. 2; Schedl 1939c: 330, 1951i: 42.

spatulatus Blandford 1896b: 218 (*Xyleborus*).

Syntypes 2 ♀; Borneo, Sarawak; BMNH, London. Synonymy: Kalshoven 1959b: 95.

References: (hb) Browne 1935a. (ds) Beeson 1961: 309; Browne 1935a; Hagedorn 1910d: 111. (tx) Blandford 1896b: 218; Hagedorn 1910a: 156; Kalshoven 1959b: 95; Schedl 1937c: 549, 1979c: 234.

scabrior (Schedl) 1953c: 304 (*Xyleborus*). Lectotype ♀; Malaya, Kelantan, Kuala Gis.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 220.

Distribution: Asia (Malaya/ Nepal).

Hosts: *Castanopsis* sp., *Shorea* sp., *Triplochiton scleroxylon*, *Vatica* sp.

References: (hb) Browne 1961c: 136. (ds) Browne 1961c: 136, 1962c: 202; Thompson, G. H. 1963: 72. (tx) Schedl 1953c: 304, 1979c: 220.

semigranulatus (Schedl) 1931c: 340 (*Xyleborus*). Holotype ♀; Java, Mt. Gede, 1500 m; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Borneo, Java).

Hosts: *Castanea javanica*, *Cinnamomum camphora*.

References: (hb) Kalshoven 1959c: 146. (ds) Kalshoven 1959c: 146. (tx) Eggers 1940d: 148; Schedl 1931c: 340–341, 1979c: 224.

artemarginatus Schedl 1975a: 456 (*Xyleborus*).

Holotype ♀; Borneo; Eggers Collection, in NHMW, Wien. Synonymy: Wood 1989: 175.

References: (tx) Schedl 1975a: 456, 1979c: 27.

sordicauda (Motschulsky) 1863: 514 (*Phloeotrogus*). Syntypes 2 ♀; types labeled India Occidental, published as Continent indien; IZM, Moscow.

Distribution: Asia (Burma/ Assam, Bengal in India), New Guinea, Philippine Islands.

Hosts: *Acrocarpus fraxinifolius*, *Streospermum neuranthum*, *S.* sp., *Tectona grandis*, *Terminalia chebula*, *Xylia xylocarpa*.

Notes: (1) Wood 1969c: 120 (identity established).

References: (cn) Kalshoven 1924c; Mathur & Singh 1961a: 74, 1961b: 31. (hb) Kalshoven 1924c: 1–27, 1959: 146. (ds) Beeson 1930; Gemminger & Harold 1872: 2692; Hagedorn 1910d: 111; Kleine 1913b: 169, 1914b: 278; Mathur & Singh 1961a: 74; Schedl 1966b: 72. (tx) Beeson 1930: 83, 259; Eggers 1923a: 188, 201, 1925: 153, 1927c: 91, 1930d: 197; Hagedorn 1910a: 156; Mathur & Singh 1961b: 14; Motschulsky 1863: 514; Nobuchi 1983: 304; Schedl 1940b: 435; Wood, S. L. 1969c: 119–120.

attenuatus Motschulsky 1863: 514 (*Phloeotrogus*).

Holotype ♀; type labeled India Occidental, printed as Continent indien; IZM, Moscow. Synonymy: Wood 1969c: 119.

References: (ds) Gemminger & Harold 1872: 2692; Kleine 1913b: 167, 1914b: 270. (tx) Hagedorn 1910a: 152; Motschulsky 1863: 514; Wood, S. L. 1969c: 119.

Genus *Theoborus* Hopkins

THEOBORUS HOPKINS 1915b: 57. Type-species: *Theoborus theobromae* Hopkins, original designation.

Keys: Wood 1982b: 770 for Central America.

References: (hb) Wood, S. L. 1986a: 82. (ds) Wood, S. L. 1982b: 770, 1986a: 82. (tx) Hopkins 1915b: 10, 57; Wood, S. L. 1982b: 770–776, 1986a: 82.

coartatus (Sampson) 1921: 32 (*Xyleborus*). Holotype ♀; Trinidad; BMNH, London.

Distribution: Antilles Islands (Jamaica/ Trinidad), North America (Costa Rica/ Chiapas in Mexico/ Panama), South America (Brazil/ Colombia).

Hosts: *Mimosa* sp., *Theobroma cacao*.

References: (hb) Wood, S. L. 1982b: 776. (ds) Blackwelder 1947: 779; Sampson 1921: 32–33; Terra 1987: 20; Wood, S. L. 1982b: 776. (tx) Eggers 1932d: 298; Sampson 1921: 32–33; Schedl 1950d: 3, 1979c: 59; Terra 1987: 20; Wood, S. L. 1966b: 31, 1982b: 776.

artecuneolus Schedl 1939n: 14 (*Xyleborus*). Holotype ♀; Trinidad; BMNH, London. Synonymy: Wood 1966b: 31.

References: (ds) Schedl 1973d: 157. (tx) Schedl 1939n: 14, 1979c: 26; Wood, S. L. 1966b: 31.

incultus (Wood) 1975b: 400 (*Xyleborus*). Holotype ♀; Fort Clayton, Canal Zone, Panama; Wood Collection.

Distribution: North America (Panama).

Hosts: *Cecropia* sp. branch.

References: (ds) Estrada & Atkinson 1988: 206; Wood, S. L. 1982b: 773. (tx) Wood, S. L. 1975b: 400, 1982b: 773.

micarius (Wood) 1974a: 33 (*Xyleborus*). Holotype ♀; Guapiles, Limón, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Cordia* sp.

References: (hb) Wood, S. L. 1982b: 774. (ds) Wood, S. L. 1982b: 774. (tx) Wood, S. L. 1974a: 33, 1982b: 774.

molestulus (Wood) 1975b: 400 (*Xyleborus*). Holotype ♀; Barro Colorado Island, Canal Zone, Panama; Wood Collection.

Distribution: North America (Panama).

References: (ds) Wood, S. L. 1982b: 775. (tx) Wood, S. L. 1975b: 400, 1982b: 775.

pristis (Wood) 1974a: 32 (*Xyleborus*). Holotype ♀; Tapanti, Cartago, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica/ Panama).

Hosts: *Miconia caudata*, tree limbs.

References: (hb) Wood, S. L. 1982b: 773. (ds) Wood, S. L. 1982b: 773. (tx) Wood, S. L. 1974a: 32, 1982b: 773.

ricini (Eggers) 1932d: 298 (*Xyleborus*). Holotype ♀; Congostaat: Stanleyville; USNM, Washington. Figures: Nunberg 1963b: pl. 24.

Distribution: Africa (introduced into: Cameroon/ Equatorial Guinea/ Ghana/ Ivory Coast/ Sao Tome Island/ Uganda/ Zaire), Antilles Islands (Dominican Republic in Hispanola), North America (Costa Rica/ Honduras/ Veracruz in Mexico/ Florida in USA), South America (Brazil/ Colombia/ Venezuela).

Hosts: *Albizia guumifera*, *Aptandra zenkeri*, *Citrus aurantifolia*, *Dioclea megacarpa*, *Hevea*

brasiliensis, *Macsa rufescens*, *Ricinus communis*, *Swietenia* sp., *Terminalia* sp., *Tetrapleura tetraptera*, *Theobroma cacao*. Schedl 1962j: 289 adds others.

References: (hb) Chesquiere 1933a: 31–34, 1933b: 781; Roberts 1969: 133; Schedl 1962j: 288. (ds) Schedl 1962h: 60, 1962j: 288, 1962k: 1102, 1964j: 42, 1965e: 355, 1967e: 218, 1971g: 193, 1972e: 284, 1977d: 279, 1979b: 416. (tx) Anderson, W. H. & Anderson 1971: 28; Eggers 1932d: 298; Nunberg 1963b: 48, pl. 24; Schedl 1941d: 380, 1948f: 270, 1952g: 52, 1962j: 48, 288–289, 1962k: 1102, 1979c: 211.

solitariceps Schedl 1954b: 45 (*Xyleborus*). Lectotype ♀; Brasilien: Parana, Rondon; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 232. Synonymy: Wood 1989: 176.

References: (hb) Atkinson & Equihua 1985b: 237, 1986a: 421; Wood, S. L. 1982b: 775. (ds) Atkinson & Equihua 1985b: 237, 1986a: 421; Atkinson et al. 1991: 160; Bright 1982b: 165, 1985c: 173; Estrada & Atkinson 1988: 206; Schedl 1966f: 90; Wood, S. L. 1982b: 775. (tx) Bright 1982b: 165, 1985c: 173; Schedl 1954b: 45, 1979c: 232; Wood, S. L. 1982b: 775.

theobromae Hopkins 1915b: 57. Holotype ♀; West Indian: Dominica; USNM, Washington.

Distribution: Antilles Islands (Barbados/ Dominica/ Dominican Republic in Hispanola/ Guadeloupe/ Trinidad), North America (Costa Rica/ Chiapas, Veracruz in Mexico/ Panama), South America (Cayenne/ Colombia/ Venezuela).

Hosts: *Erythrina costaricensis*, *Ochroma* sp., *Theobroma cacao*.

References: (hb) Morales & Bhaktar 1984; Wood, S. L. 1982b: 772. (ds) Atkinson 1986a: 421; Blackwelder 1947: 779; Bright 1985c: 173; Kleine 1934a: 178; Leng & Mutchler 1917: 220; Wood, S. L. 1982b: 772. (tx) Bright 1985c: 173; Hopkins 1915b: 57; Schedl 1952k: 163; Wood, S. L. 1962: 79, 1985c: 173.

pseudococcotrypes Eggers 1941a: 105 (*Xyleborus*). Holotype ♀; Franz. Guyana (St. Jean du Maroni); MNHN, Paris. Synonymy: Wood 1962: 79.

References: (tx) Eggers 1941a: 105; Schedl 1979c: 201; Wood, S. L. 1962: 79.

hirtellus Schedl 1948f: 271 (*Xyleborus*). Lectotype ♀; West Indies, St. Vincent, Trinidad; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 118. Synonymy: Schedl 1952k: 163.

References: (tx) Schedl 1948f: 271, 1952k: 163, 1979c: 118.

villosulus (Blandford) 1898b: 204 (*Xyleborus*). Holotype ♀; Rio Naranjo, San Marcos, Guatemala; BMNH, London.

Figures: Nunberg 1971: 63–64, Pedrosa-Macedo & Schonherr 1985: 21.

Distribution: North America (Guatemala), South America (Argentina/ Bolivia/ Brazil/ Cayenne/ Peru/ Venezuela).

Hosts: *Inga* sp., *Pinus elliottii*, *Theobroma cacao*.

References: (**ds**) Blackwelder 1947: 780; Hagedorn 1910d: 112; Kleine 1913b: 162, 1914b: 371; Pedrosa-Macedo & Schonherr 1985: 21; Terra 1987: 22; Wood, S. L. 1982b: 772. (**tx**) Blandford 1898b: 204; Hagedorn 1910a: 157; Pedrosa-Macedo & Schonherr 1985: 21; Schedl 1952k: 161; Terra 1987: 22; Wood, S. L. 1982b: 772.

coccotrypoides Eggers 1943a: 388 (*Xyleborus*).

Holotype ♀; Bolivia (Cochabamba); MNHN, Paris. Synonymy: Wood 1976a: 349.

References: (**ds**) Nunberg 1962: 224, 1971: 58; Schedl 1976a: 54, 1979e: 58; Schonherr & Pedrosa-Macedo 1981: 55. (**tx**) Eggers 1943a: 388; Nunberg 1971: 63–64; Schedl 1979c: 59; Wood, S. L. 1976a: 349.

villosus Schedl 1948f: 270 (*Xyleborus*). Syntypes ♀; Brasil, Nova Teutonia; Schedl Collection in NHMW, Wien, and Plaumann Collection.

Notes: (1) Schedl 1979c: 268 (citation of holotype invalid).

References: (**cn**) Cranham 1966c. (**hb**) Cranham 1966c. (**ds**) Navajas 1966: 48–50; Schedl 1966f: 80, 1967d: 4, 1970e: 85, 1973d: 160. (**tx**) Schedl 1948f: 270, 1958f: 35, 1979c: 268; Wood, S. L. 1976a: 349.

Genus *Coptoborus* Hopkins

COPTOBORUS HOPKINS 1915b: 53. Type-species: *Coptoborus emarginatus* Hopkins = *Xyleborus vespatorius* Schedl, original designation.

Streptocranus Schedl 1939f: 52. Type-species: *Streptocranus mirabilis* Schedl, monobasic. Synonymy: Wood 1980c: 96.

References: (**tx**) Browne 1949b: 898, 1960: 201–220, 1961c: 171; Schedl 1939f: 52, 1957d: 86; Wood, S. L. 1980c: 96, 1986a: 82–83.

Keys: Wood 1982b: 780 for Central America.

Notes: (1) New World and Old World representatives of this genus form distinct groups except that the type-species is intermediate and bridges the gap between them.

References: (**hb**) Wood, S. L. 1986a: 82–83. (**ds**) Wood, S. L. 1986a: 82–83. (**tx**) Hopkins 1915b: 10, 53; Schedl 1952k: 162–163; Wood, S. L. 1980c: 96, 1986a: 82–83.

adjunctus (Eggers) 1924: 108 (*Xyleborus*). Holotype ♀; Mont Kalombo (Manyema), Congostaat; USNM, Washington.

Distribution: Africa (Angola/ Congo/ Equatorial Guinea/ Gabon/ Ghana/ Guinea/ Tanzania/ Zaire/ Zimbabwe).

Hosts: *Albizzia gummifera*.

References: (**hb**) Loyttyniemi, Beaver, & Loyttyniemi 1984; Roberts 1969: 188. (**ds**) Ferreira 1965: 1120; Schedl 1959p: 19; 1962j: 563, 1966c: 226,

1971g: 192. (**tx**) Anderson, W. H. & Anderson 1971: 3; Browne 1965a: 188; Eggers 1922b: 172, 1924: 108, 1927a; Schedl 1962j: 563, 1979c: 12.

adjunctus corruptus Schedl 1962j: 564 (*Xyleborus*).

Lectotype ♀; Congo Belge: Kasai, Ngombe; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 12.

Notes: (3) An apparent aberration.

References: (**ds**) Ferreira 1966: 1112; Schedl 1967e: 215. (**tx**) Schedl 1962j: 564, 1979c: 12.

artenuis (Schedl) 1973c: 372 (*Xyleborus*). Holotype ♀; Bolivien, Guayaramerin (Beni); NHMB, Budapest.

Distribution: South America (Bolivia).

References: (**tx**) Schedl 1973c: 372.

assiduus (Schedl) 1961i: 228 (*Xyleborus*). Holotype ♀; Venezuela, Mt. Duida; CAS, San Francisco, lost (?).

Distribution: South America (Venezuela).

Notes: (1) The Schedl “paratype” at NHMW, Wien, apparently represents the only known specimen from the type series; the “holotype” was not returned to the California Academy of Science, as was stated in the description, and in all probability never existed except as the “paratype.”

References: (**ds**) Schedl 1960a: 78. (**tx**) Schedl 1961i: 228, 1979c: 29.

bicolor (Browne) 1949b: 900 (*Streptocranus*). Holotype ♀; Malaya: Kelantan, Nal.; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Eugenia* sp., *Palaquium stellatum*.

References: (**hb**) Browne 1961c: 172. (**ds**) Browne 1986c: 662. (**tx**) Browne 1949b: 900, 1961c: 172.

bicuspis (Eggers) 1940d: 153 (*Xyleborus*). Holotype ♀; Java; Drescher Collection, cotype in Eggers cotype in NHMW, Wien.

Distribution: Asia (Malaya), Indonesia (Borneo/ Java).

Hosts: *Castanopsis* sp.

Notes: (1) Schedl 1979c: 39 (invalid lectotype designation from the Eggers cotype in NHMW, Wien; a holotype existed).

References: (**ds**) Browne 1961c: 172. (**tx**) Browne 1960: 206; Eggers 1940d: 153; Schedl 1934g: 178, 1950g: 893, 1979c: 39.

recurvus Browne 1949b: 898 (*Streptocranus*). Holotype ♀; Malaya: Kelantan, Kampong Kroh; BMNH, London. Synonymy: Schedl 1950g: 893.

References: (**tx**) Browne 1949b: 898; Schedl 1950g: 893.

bispinus (Schedl) 1979g: 104 (*Xyleborus*). Holotype ♀; Papua New Guinea: Morobe Distr., Bulolo, Taim L. A.; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (**tx**) Schedl 1979g: 104.

capucinulus (Schedl) 1942d: 27 (*Streptocranus*).
Lectotype ♀; Java, Buitenzorg; Schedl Collection
in NHMW, Wien, designated by Schedl 1979c:
52.

Distribution: Asia (Malaya), Indonesia (Java).

Hosts: *Canarium* sp.

Notes: (3) Schedl 1951i: 95 (described male).

References: (hb) Browne 1961c: 172; Kalshoven
1959c: 164. (ds) Browne 1961c: 172; Kalshoven
1959c: 164. (tx) Beaver & Browne 1978: 600;
Browne 1950b: 645, 1959a: 87; Kalshoven 1959b:
97; Schedl 1942d: 27, 1951i: 95, 1979c: 52.

penangensis Browne 1950b: 645 (*Streptocranus*).

Holotype ♀; Malaya: Penang; BMNH,
London. Synonymy: Browne 1959a: 97, Kal-
shoven 1959b: 97.

References: (tx) Browne 1950b: 645, 1959a:
97; Kalshoven 1959b: 97.

catulus (Blandford) 1898b: 215 (*Xyleborus*). Holo-
type ♀; Volcan de Chiriqui, Chiriqui, Panama;
BMNH, London.

Distribution: North America (Panama), South
America (Brazil/ Suriname/ Venezuela).

Hosts: *Guazuma ulmifolia*.

References: (hb) Wood, S. L. 1982b: 801. (ds)
Atkinson & Equihua 1986a: 421; Blackwelder
1947: 779; Hagedorn 1910d: 99; Kleine 1914b:
372; Wood, S. L. 1982b: 801. (tx) Blandford
1898b: 215; Eggers 1927a: 190; Hagedorn 1910a:
152; Wood, S. L. 1975a: 23, 1982b: 801.

intricatus Schedl 1948f: 274 (*Xyleborus*). Holo-
type ♀; Brazil, St. Catharina; Schedl Collec-
tion in NHMW, Wien. Synonymy: Wood
1975a: 23.

References: (ds) Schedl 1960a: 78, 1966f: 77,
1967d: 3, 1978c: 291. (tx) Schedl 1948f: 274,
1979c: 128; Wood, S. L. 1975a: 23.

cuneatus (Eichhoff) 1878b: 380 (*Xyleborus*). Holo-
type ♀; Varinas, Nova Grenada [presumably
Barinas, Venezuela]; Schedl Collection in
NHMW, Wien.

Distribution: North America (Panama), South
America (Colombia/ Peru/ Venezuela).

References: (ds) Blackwelder 1947: 779; Hage-
dorn 1910d: 101; Kleine 1913b: 160, 1914b: 342;
Wood, S. L. 1982b: 802. (tx) Eggers 1927c: 92,
1928c: 97, 1934b: 27–29; Eichhoff 1878b: 380;
Hagedorn 1910a: 152; Sampson 1919: 110; Schedl
1948f: 269, 1979c: 71.

exutus (Wood) 1974a: 36 (*Xyleborus*). Holotype ♀;
Turrialba, Cartago, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).

Notes: (3) Schedl 1980d: 121 (erroneously treats
this as a synonym).

References: (ds) Wood, S. L. 1982b: 803. (tx) Schedl
1980d: 121; Wood, S. L. 1974a: 36, 1982b: 803.

forficatus (Schedl) 1957d: 108 (*Xyleborus*). Holo-
type ♀; Congo Belge: Kivu, route Tshibinda-Bun-
yakiri; MRCB, Tervuren.

Figures: Numberg 1963b: pl. 15.

Distribution: Africa (Zaire).

Hosts: *Anthonothea macrophylla*, *Turraecanthus
africana*.

References: (hb) Roberts 1969: 128; Schedl
1962j: 565. (ds) Schedl 1962j: 565. (tx) Numberg
1963b: 33, pl. 15; Schedl 1957d: 108, 1962j: 565,
1979c: 98.

fragilis (Browne) 1949b: 901 (*Streptocranus*).
Holotype ♀; Malaya: Kelantan, Nal.; BMNH,
London.

Distribution: Asia (Malaya).

Hosts: *Eugenia* sp., *Palaquium stellatum*.

References: (hb) Browne 1961c: 172. (ds)
Browne 1961c: 172. (tx) Browne 1949b: 901.

gentilis (Schedl) 1972g: 70 (*Xyleborus*). Holotype
♀; Brasilien, Corcovado, Guanabara; Schedl Col-
lection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1972g: 70, 1979c: 103.

longicauda (Browne) 1960: 206 (*Streptocranus*).
Holotype ♀; Malaya: Kepong; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Sumatra).
Hosts: *Castanopsis sumatrana*.

References: (hb) Browne 1961c: 171; Parsons 1963:
351. (ds) Browne 1960: 206, 1961c: 171, 1962b: 206.

longispinis Browne 1986a: 91 (*Streptocranus*).
Holotype ♀; New Guinea: Fak fak to Nagoya,
intercepted; BMNH, London.

Distribution: New Guinea.

Hosts: *Penarham log* (Myristicaceae).

References: (tx) Browne 1986a: 91.

melas (Eggers) 1927c: 93 (*Xyleborus*). Lectotype ♀;
Philippinen: Luzon, Provinz Mountain, Balaban;
USNM, Washington, designated by Anderson &
Anderson 1971: 20.

Distribution: Philippine Islands, Samoa.

References: (ds) Schedl 1966b: 61, 1972b: 267.
(tx) Anderson, W. H. & Anderson 1971: 20;
Eggers 1927c: 93, 1932d: 300; Nobuchi 1983:
303; Schedl 1958b: 104, 1979c: 151.

mirabilis (Schedl) 1939f: 53 (*Streptocranus*).
Lectotype ♀; Java, Mount Gede, 800 m; Schedl
Collection in NHMW, Wien, designated by
Schedl 1979c: 157.

Distribution: Indonesia (Java).

References: (hb) Kalshoven 1959c: 164. (ds) Kal-
shoven 1959c: 164. (tx) Schedl 1934g: 178, 1939e:
355, 1939f: 53, 1951i: 44, 84, 1979c: 157.

neoadjunctus (Schedl) 1967d: 13 (*Xyleborus*).
Holotype ♀; Brasilien, Nova Teutonia, Santa Cat-
arina; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1967d: 13–14, 1979c: 164.

neospheos (Schedl) 1976a: 76 (*Xyleborus*). Holo-
type ♀; Vilhena, Rondonia [Brazil]; Schedl Col-
lection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1976a: 76.

palmeri Hopkins 1915b: 54. Holotype ♀; Mount Salak, Java; USNM, Washington.

Distribution: Indonesia (Java).

References: (tx) Hopkins 1915b: 53–54; Schedl 1952k: 163.

pseudotenuis (Schedl) 1936i: 109 (*Xyleborus*). Holotype ♀; Brasilien; Schedl Collection in NHMW, Wien.

Distribution: North America (Costa Rica/ San Luis Potosi, Veracruz in Mexico/ Panama), South America (Brazil/ Venezuela).

Hosts: *Cordia* sp., *Hevea brasiliensis*, *Theobroma cacao*.

References: (hb) Wood, S. L. 1982b: 802. (ds) Atkinson & Equihua 1985b: 237, 1986a: 421; Blackwelder 1947: 780; Estrada & Atkinson 1988: 207; Ferrer 1942; Schedl 1976a: 55; Wood, S. L. 1982b: 802. (tx) Schedl 1936i: 109–110, 1940a: 361, 1959a: 510, 1979c: 202; Wood, S. L. 1976a: 349, 1982b: 802.

tenuis Schedl 1948f: 269 (*Xyleborus*). Holotype ♀; Cordova [presumably Veracruz, Mexico]; Schedl Collection in NHMW, Wien. Synonymy: Wood 1976a: 349.

References: (tx) Schedl 1934e: 209, 1936i: 108–109, 1948f: 269, 1979: 252; Wood, S. L. 1976a: 349.

exilis Schedl 1934e: 209 (*Xyleborus*). Holotype ♀; Halbinsel Osa, Costa Rica; Schedl Collection in NHMW, Wien. Wood 1982b: 802 (a probable synonym).

References: (ds) Blackwelder 1947: 779. (tx) Schedl 1934e: 209, 1979c: 93; Wood, S. L. 1982b: 802.

superbulus (Schedl) 1958k: 148 (*Xyleborus*). Holotype ♀; Java, Buitenzorg, 250 m; Schedl Collection in NHMW, Wien, automatic.

Distribution: Indonesia (Java), New Guinea.

References: (tx) Schedl 1958k: 148.

superbus Schedl 1951i: 95 (*Xyleborus*). Holotype ♀; Java, Buitenzorg, 250 m; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1942.

References: (tx) Schedl 1951i: 95, 1958k: 148.

superbus (Schedl) 1942c: 188 (*Xyleborus*). Holotype ♀; New Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1942c: 188, 1970a: 216, 1979c: 247.

terminaliae Hopkins 1915b: 54. Holotype ♀; Pagbilao, P. I.; USNM, Washington.

Distribution: Philippine Islands.

Hosts: *Terminalia* spp.

References: (tx) Hopkins 1915b: 53–54; Schedl 1952k: 163.

tolimanus (Eggers) 1928c: 97 (*Xyleborus*). Lectotype ♀; Columbia (Tolima); USNM, Washington, designated by Anderson & Anderson 1971: 34.

Figures: Nunberg 1971: 63, Terra 1987: 26.

Distribution: North America (Costa Rica), South America (Brazil/ Colombia/ Venezuela).

Hosts: *Guatteria* sp., *Protium* sp., *Theobroma cacao*.

References: (hb) Beaver 1976a: 27; Wood, S. L. 1982b: 803. (ds) Atkinson & Equihua 1986a: 421, 1988: 102; Beaver 1976a: 27; Blackwelder 1947: 780; Kleine 1934a: 175; Nunberg 1971: 58; Schedl 1966f: 90, 1970e: 85, 1972g: 45; Terra 1987: 25; Wood, S. L. 1982b: 803. (tx) Anderson, W. H. & Anderson 1971: 34; Eggers 1928c: 97–98; Nunberg 1971: 62–63; Schedl 1948f: 274, 1979c: 253; Terra 1987: 25–26; Wood, S. L. 1982b: 803.

usagarius (Eggers) 1922b: 172 (*Xyleborus*). Holotype ♀; S.O. Usagara, Deutsch-Ostafrika; Methner Collection.

Figures: Nunberg 1963b: pls. 13, 19, 1978: 112, 117, Schedl 1962j: 569.

Distribution: Africa (Angola/ Ghana/ Ivory Coast/ Tanzania/ Uganda/ Zaire/ Zambia/ Zimbabwe).

Hosts: *Anthonotha macrophylla*, *Antrocaryon micraster*, *Celtis* spp., *Cinchona* sp., *Drypetes leonensis*, *Macrobium* sp., *Macropsis emini*, *Pentaclethra macrophylla*, *Pentadesma lebrunii*, *Solanum aculeastrum*.

References: (hb) Loytyniemi, Beaver, & Loytyniemi 1984. (ds) Beaver & Loytyniemi 1985a: 70; Browne 1975b: 394; Ferreira 1965: 1126; Schedl 1959p: 22, 1962h: 61, 1962j: 566, 1962k: 1105, 1964e: 69; Wichmann 1954: 522. (tx) Beaver & Loytyniemi 1985a: 70; Eggers 1922b: 172, 1924: 108–109, 1943c: 66; Nunberg 1978: 117; Schedl 1939g: 172, 1950d: 8, 1953g: 246, 1957d: 84, 1961i: 228, 1962j: 566–567.

usagarius subadjunctus Schedl 1950d: 28 (*Xyleborus*). Holotype ♀; S. Rhodesia: Salisbury; BMNH, London. Synonymy: Wood 1989: 171.

Notes: (1) Browne 1961h: 50 treated this name in *Prennobi* where it probably does not belong.

References: (tx) Schedl 1950d: 28, 1962j: 570; Wood, S. L. 1989: 171.

hendrickxi Schedl 1953g: 245 (*Streptocranus*). Lectotype ♀; Congo Belge, Kivu, Mulungu; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 116. Synonymy: Wood 1989: 171.

References: (ds) Gardner 1957a: 33; Schedl 1962j: 568. (tx) Schedl 1953g: 245–246, 1957d: 113–114, 1962j: 568, 1979c: 116; Wood, S. L. 1989: 171.

monticolus Schedl 1957d: 113 (*Xyleborus*). Holotype ♀; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren. Synonymy: Wood 1989: 171.

References: (hb) Schedl 1962j: 569. (ds)

Schedl 1962j: 569. (tx) Nunberg 1963b: 39, pl. 19; Schedl 1957d: 113–114, 1962j: 569, 1979c: 159; Wood, S. L. 1989: 171.

fallaciosus Schedl 1957d: 114 (*Xyleborus*). Holotype ♀; Congo Belge: Yangambi; MRCB, Ter-vuren. Synonymy: Wood 1989: 171.

References: (hb) Schedl 1962j: 567. (ds) Schedl 1962j: 567. (tx) Nunberg 1963b: 31, pl. 13, 1978: 112; Schedl 1957d: 113–115, 1962j: 567, 1979c: 95; Wood, S. L. 1989: 171.

usagaricus hembibitalei Schedl 1962j: 567 (*Xyleborus*). Holotype ♀; Congo Belge: Hembibitale; Schedl Collection in NHMW, Wien.

Notes: (1) Because most of Schedl's subspecies are no more than aberrations, the status of this name is doubtful.

References: (tx) Schedl 1962j: 567, 1979c: 262.

vespatorius (Schedl) 1931c: 342 (*Xyleborus*). Holotype ♀; San Ignacio, Argentina; Schedl Collection in NHMW, Wien.

Figures: Nunberg 1978: 117, Terra 1987: 24.

Distribution: Antilles Islands (Trinidad), North America (Costa Rica/ Guatemala/ Veracruz in Mexico), South America (Argentina/ Brazil/ Colombia/ Venezuela).

Hosts: *Hevea brasiliensis*, *Theobroma cacao*.

Notes: (3) Declivital denticles of the holotype were chewed off by siblings, thus making identification difficult.

References: (hb) Wood, S. L. 1982b: 800. (ds) Atkinson & Equihua 1986a: 421; Blackwelder 1947: 780; Nunberg 1971: 58; Terra 1987: 22; Wood, S. L. 1982b: 800. (tx) Nunberg 1978: 117–118; Schedl 1931c: 342–343, 1979c: 266; Terra 1987: 22, 24; Wood, S. L. 1972e: 200, 1982b: 800.

emarginatus Hopkins 1915b: 53. Holotype ♀; Livingston, Guatemala; USNM, Washington, preoccupied by Eichhoff 1878.

Notes: (1) Schedl 1952k: 163 transferred this species to *Xyleborus* and regarded it as a junior homonym; consequently, it must be rejected under Article 59C of the Code.

References: (ds) Blackwelder 1947: 779. (tx) Hopkins 1915b: 53; Schedl 1952k: 162–163; Wood, S. L. 1972e: 200.

corniculatus Schedl 1948f: 275 (*Xyleborus*). Holotype ♀; Sta. Catharina, Brazil; Schedl Collection in NHMW, Wien. Synonymy: Wood 1972e: 200.

Notes: (3) Schedl 1961i: 228 (described male). References: (ds) Steinhausen 1956: 48. (tx) Schedl 1948f: 275, 1952k: 162–163, 1961i: 228, 1979c: 65; Steinhausen 1956: 48; Wood, S. L. 1961c: 2, 1972e: 200.

corniculatus Schedl 1948f: 275 (*Xyleborus*). Holotype ♀; Trinidad; Schedl Collection in NHMW, Wien. Synonymy: Wood 1972e: 200. References: (cn) Iton 1960: 461. (ec) Iton 1960: 461. (ds) Schedl 1960g: 76, 1966f: 78;

Wood, S. L. 1961c: 2. (tx) Schedl 1948f: 275, 1961a: 529, 1961i: 228, 1979c: 65; Wood, S. L. 1972e: 200.

Genus *Arixyleborus* Hopkins

ARIXYLEBORUS HOPKINS 1915b: 59. Type-species: *Arixyleborus rugosipes* Hopkins, original designation.

Xyleboricus Eggers 1923a: 212. Type-species: *Xyleboricus canaliculatus* Eggers, subsequent designation by Schedl 1936h: 64. Synonymy: Schedl 1952k: 162.

References: (tx) Eggers 1923a: 212; Schedl 1936h: 64, 1939c: 349, 1952k: 162.

References: (ay) Nobuchi 1969a: 64. (hb) Browne 1961c: 178–179; Wood, S. L. 1986a: 83. (ds) Schedl 1966b: 43; Wood, S. L. 1986a: 83. (tx) Browne 1962c: 201–220, 1963c: 53–59; Hopkins 1915b: 10, 59; Schedl 1952k: 161, 1962n: 697–699; Wood, S. L. 1986a: 83.

abruptus Schedl 1975f: 358. Holotype ♀; Upper Manki logging area, Bulolo, Morobe District, New Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1975f: 358, 1979c: 9.

camphorae (Eggers) 1936d: 634 (*Webbia*). Holotype ♀; Johore, Kluang; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Cinnamomum camphora*.

Notes: (3) Browne 1955: 351 (treated as a synonym of *rugosipes* Hopkins).

References: (ds) Beeson 1961: 301; Kalshoven 1959: 168; Schedl 1959a: 492. (tx) Browne 1955: 351; Eggers 1936d: 634–635; Schedl 1950g: 895, 1958k: 145, 1979c: 51.

canaliculatus (Eggers) 1923a: 216 (*Xyleboricus*). Lectotype ♀; Neu Guinea S.E., Paumotu riv.; USNM, Washington, designated by Anderson & Anderson 1971: 8.

Figures: Nobuchi 1978a: pl. 1.

Distribution: Asia (Bengal in India), New Britain Island, New Guinea.

Hosts: *Castanopsis* sp.

References: (bv) Gray, B. 1974c. (cn) Wylie & Shanahan 1975. (hb) Gray, B. 1974c; Wylie & Shanahan 1975. (ds) Beeson 1938b: 291; Nunberg 1961b: 610; Schedl 1936g: 534, 1958k: 145, 1962i: 72, 1968c: 263, 1969e: 156. (tx) Anderson, W. H. & Anderson 1971: 8; Eggers 1923a: 216, 1927c: 106; Schedl 1936g: 534, 1936h: 62–64, 1940b: 434, 1942c: 163, 1942d: 27, 1951i: 51, 1952k: 162, 1955b: 297, 1958k: 145; Wylie & Yule 1977.

subsimilis Schedl 1970b: 362. Holotype ♀; Lolobau, New Britain to Tokyo (Japan), imported; PPST, Tokyo. Synonymy: Wood 1989: 170.

References: (ds) Browne 1984c: 449; Nobuchi 1978a: 8; Ohno, Yoneyama, & Nakazawa 1987: 95; Olmo, Yoskioka, Yoneyama, & Nakazawa

- 1988a: 92; Ohno, Yoskioka, Uchida, Yoneyama, & Tsukamoto 1989: 60. (**tx**) Nobuchi 1978a:pl. 1, 1983: 302; Schedl 1970b: 362, 1979c: 244; Wood, S. L. 1989: 170.
- cariniceps** Schedl 1975f: 358. Holotype ♀; Wewak, Timbers Sawmill, E. Sepik Dist. [New Guinea]; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
Hosts: *Dracondomerus* sp.
References: (**tx**) Schedl 1975f: 358, 1979c: 53.
- castaneae** Schedl 1958k: 146. Syntypes ♀; Java, Stapelplaats Bandung; RNH, Leiden, and Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Borneo, Java).
Hosts: *Castanea argentea*.
References: (**hb**) Kalshoven 1959c: 169. (**ds**) Kalshoven 1959c: 169; Schedl 1965g: 23. (**tx**) Schedl 1958k: 146, 1965g: 23, 1979c: 54.
- confinis** (Eggers) 1927c: 106 (*Webbia*). Holotype ♀; Philippinen: Mindanao, Lanao Prov., Kolambugan; USNM, Washington.
Distribution: Philippine Islands (Mindanao).
References: (**ds**) Schedl 1966b: 43. (**tx**) Anderson, W. H. & Anderson 1971: 9; Eggers 1927c: 106; Nobuchi 1983: 301; Schedl 1936h: 62, 64, 1958k: 145.
- deceptus** Schedl 1979g: 103. Holotype ♀; New Guinea: NE, Wau, Golden Ridge; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (**tx**) Schedl 1979g: 103.
- dipterocarpi** Browne 1981a: 133. Holotype ♀; Bislig (Philippines) to Nagoya (Japan), imported; BMNH, London.
Distribution: Philippine Islands.
Hosts: *Dipterocarpus* sp.
References: (**tx**) Browne 1981a: 133; Eggers 1936e: 86; Nobuchi 1983: 301.
- dissimilis** (Eggers) 1923a: 214 (*Xyleboricus*). Holotype ♀; Sipora (Sereinu) auf der Insel Mentawai; MCG, Genova.
Distribution: Indonesia (Mentawai).
References: (**tx**) Eggers 1923a: 214; Schedl 1936h: 64, 1958k: 145.
- fuliginosus** (Eggers) 1923a: 205 (*Xyleborus*). Syntypes 2 ♀; G. Kenepai (Podok, Borneo), und Muara Sako (Sumatra); RNH, Leiden, and Eggers Collection (USNM, Washington or NHMW, Wien?).
Distribution: Indonesia (Borneo, Sumatra).
References: (**tx**) Browne 1955: 350; Eggers 1923a: 205–206; Schedl 1958k: 145.
- gedeanus** (Schedl) 1942d: 26 (*Xyleboricus*). Lectotype ♀; Java: Mount Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 103.
Distribution: Indonesia (Java).
References: (**hb**) Kalshoven 1959c: 168. (**ds**) Kalshoven 1959c: 168. (**tx**) Schedl 1942d: 26–27, 1958k: 145, 1979c: 103.
- grandis** (Schedl) 1942d: 27 (*Xyleboricus*). Lectotype ♀; Buitenzorg, Java; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 108.
Distribution: Indonesia (Borneo, Java).
Hosts: *Palaquium* sp.
Notes: (3) Schedl 1971c: 375 (described male).
References: (**hb**) Kalshoven 1958a: 186, 1959c: 167. (**ds**) Browne 1979c: 108; Kalshoven 1958a: 186, 1959c: 167; Ohno, Yoneyama, & Nakazawa 1987a: 89; Schedl 1971c: 368. (**tx**) Browne 1960: 202; Schedl 1942d: 27, 1971c: 375, 1979c: 108.
- granifer** (Eichhoff) 1878b: 502 (*Xyleborus*). Syntypes ♀; Hindostan (Birma); Hamburg Museum, lost.
Distribution: Asia (Burma/ Bengal in India/ Malaya), Indonesia (Borneo).
Hosts: *Castanopsis* sp., *Dryobalanops* sp., *Eugenia* sp., *Koompassia* sp., *Pasania* sp., *Shorea ovalis*, *S. sp.*
Notes: (1) Browne 1955: 350 (to *Arixyleborus*).
References: (**hb**) Browne 1961c: 179. (**ds**) Browne 1961c: 179, 1962c: 202, 1985b: 290; Hagedorn 1910d: 105; Kleine 1913b: 160, 1914b: 278; Nobuchi 1978a: 9; Ohno, Yoneyama, & Nakazawa 1987a: 89; Schedl 1936d: 3, 1964c: 304. (**tx**) Browne 1955: 350, 1960: 202; Eggers 1923a: 205–207, 1925: 159; Eichhoff 1878a: 391, 1878b: 502; Hagedorn 1910a: 154; Nobuchi 1978a:pl. 1; Schedl 1936d: 3, 1939e: 331, 1955b: 303, 1958k: 145.
- granifer borneensis** Schedl 1965g: 27. Holotype ♀; O. Borneo, Pajau River and Mt. Tibang, 1400 m; NIIR, Stockholm.
References: (**ds**) Schedl 1965g: 23. (**tx**) Schedl 1965g: 27, 1979c: 109.
- granulicauda** Schedl 1975f: 359. Holotype ♀; Upper Manki logging area, Bulolo, Morobe Distr., New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (**tx**) Schedl 1975f: 359, 1979c: 111.
- granulifer** (Eggers) 1923a: 206 (*Xyleborus*). Lectotype ♀; Sinabang auf Sinalur, einer Nebeninsel Sumatras; USNM, Washington, designated by Anderson & Anderson 1971: 14.
Figures: Nobuchi 1978a:pl. 1.
Distribution: Asia (Burma/ Bengal in India/ Malaya/ Sri Lanka), Indonesia (Borneo, Mentawai, Sumatra), Philippine Islands.
Hosts: *Castanopsis* sp., *Dipterocarpus zeylanicus*, *Koompassia excelsa*, *Myristica dactyloides*, *Shorea leprosula*, *S. ovalis*.
Notes: (3) Schedl 1969a: 211 (described male).
References: (**cn**) Mathur & Singh 1960b: 84. (**hb**) Browne 1936a, 1961c: 180. (**ds**) Browne 1936a, 1961c: 180, 1962c: 202, 1980b: 381; Choo, Woo, & Kim 1981: 200; Mathur & Singh 1960b: 84; Nobuchi 1978a: 10, 1980a; Ohno, Yoneyama, & Nakazawa 1982a: 4, 1982b: 9, 1987a: 89; Schedl

1936d: 3, 1959a: 491, 1966g: 31, 1969a: 204, 1971a: 276, 1971f: 146. **(tx)** Anderson, W. H. & Anderson 1971: 14; Browne 1955: 350, 1960: 202; Eggers 1923a: 206–207, 1940d: 147; Nobuchi 1978a:pl. 1; Nunberg 1959a: 426, 1983: 301; Schedl 1936d: 3, 1953c: 290, 1958k: 145, 1959a: 491, 1969a: 211, 1979c: 111.

guttifer (Schedl) 1955b: 297 (*Xyleboricus*). Holotype ♀; New Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: **(tx)** Schedl 1955b: 280, 297, 1958k: 145, 1979c: 114.

hirsutulus Schedl 1969a: 212. Holotype ♀; Philippine Islands, Linek to Tokyo (Japan), imported; PPST, Tokyo.

Figures: Nobuchi 1978a:pl. 1.

Distribution: Philippine Islands.

Hosts: Lauan log.

References: **(ds)** Nobuchi 1978a: 10, 1980a; Ohno, Yoneyama, & Nakazawa 1987a: 89, 1987b: 95. **(tx)** Nobuchi 1978a:pl. 1, 1983: 302; Schedl 1969a: 212, 1979c: 117.

hirtipennis (Eggers) 1940d: 146 (*Xyleborus*). Holotype ♀; Java (Batoerraden); F. C. Drescher Collection.

Distribution: Indonesia (Borneo, Java).

Notes: (1) Browne 1955: 350 (to *Arixyleborus*).

References: **(ds)** Schedl 1965g: 24. **(tx)** Browne 1955: 350; Eggers 1940d: 146, Schedl 1951i: 44, 1958k: 145, 1965g: 24, 1979c: 118.

imitator (Eggers) 1927c: 105 (*Webbia*). Holotype ♀; Philippinen: Masbate, Aroroy; USNM, Washington.

Figures: Nobuchi 1978a:pl. 1.

Distribution: Philippine Islands.

Notes: (1) Schedl 1936h: 64 (to *Arixyleborus*).

References: **(ds)** Nobuchi 1978a: 8; Ohno, Yoneyama, & Nakazawa 1987a: 89, 1987b: 95; Schedl 1938g: 426, 1966b: 43, 1966g: 31. **(tx)** Anderson, W. H. & Anderson 1971: 15; Eggers 1927c: 105, 1936d: 634; Nobuchi 1978a:pl. 1, 1983: 302; Schedl 1936h: 62, 64, 1938g: 426, 1958k: 145, 1966g: 38, 1979c: 121.

granistriatus Eggers 1940d: 147 (*Xyleborus*).

Holotype ♀; Java (Batoerraden, G. Slamet); Eggers Collection, in NHMW, Wien. Synonymy: Wood 1989: 170.

References: **(tx)** Browne 1955: 350; Eggers 1940d: 147; Schedl 1958k: 145, 1979c: 110; Wood, S. L. 1989: 170.

iriani Browne 1983a: 560. Holotype ♀; Misool Island (West Irian) to Nagoya (Japan), imported; BMNH, London.

Distribution: New Guinea.

Hosts: Amugis log.

References: **(ds)** Browne 1986b: 333; Ohno, Yoneyama, & Nakazawa 1987b: 95. **(tx)** Browne 1983a: 560.

leprosulus Schedl 1953c: 300. Lectotype ♀; Selangor Kepong, Malaya; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 138. Figures: Nunberg 1961b: 629.

Distribution: Asia (Malaya).

Hosts: *Aralidium pinnatifolium*, *Castanopsis megacarpa*, *C. sumatrana*, *Dryobalanops oblongifolia*, *Shorea leprosula*.

References: **(hb)** Browne 1936a, 1961c: 182. **(ds)** Browne 1936a, 1961c: 182. **(tx)** Nunberg 1961b: 619; Schedl 1953c: 300, 1958k: 145, 1962n: 699, 1979c: 138.

aralidii Nunberg 1961b: 618. Holotype ♀; Malay Peninsula, Kelantan; BMNH, London. Synonymy: Schedl 1962n: 699, Wood 1989: 170.

References: **(tx)** Nunberg 1961b: 618, 629; Schedl 1962n: 699; Wood, S. L. 1989: 170.

magnus Browne 1985a: 192. Holotype ♀; Barton (Palawan, Philippines) to Nagoya (Japan), imported; BMNH, London.

Distribution: Philippine Islands (Palawan).

References: **(ds)** Ohno, Yoneyama, & Nakazawa 1987a: 89. **(tx)** Browne 1985a: 192.

malayensis (Schedl) 1954a: 150 (*Xyleboricus*). Lectotype ♂; Java, Batoerraden, Mount Slamet; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 147.

Distribution: Asia (India/ Malaya/ Sri Lanka/ Vietnam), Indonesia (Java, Sumatra).

Hosts: *Albizia lebbeck*, *Canarium commune*, *Dryobalanops oblongifolia*, *Eugenia* spp., *Myristica fragrans*, *Suicetenia mahagoni*, *Vatica lanceaefolia*.

Notes: (1) Schedl 1952k: 161 (to *Arixyleborus*). (3) Schedl 1936h: 64, 1979c: 149 (*marginatus* Eggers 1938, nomen nudum, no status).

References: **(hb)** Beaver & Browne 1978: 582; Kalshoven 1959c: 168. **(ds)** Beaver & Browne 1978: 582; Browne 1961c: 182; Kalshoven 1959c: 168; Schedl 1959a: 491, 1969a: 52, 1974c: 262. **(tx)** Schedl 1936h: 64, 1951i: 41, 1952k: 161, 1953c: 290, 300, 1954a: 144, 150, 1958k: 144–147, 1959a: 491, 1979c: 146.

mediosectus (Eggers) 1923a: 215 (*Xyleboricus*). Holotype ♀; Sinabang, Insel Simalur (sudlich Sumatra); RNH, Leiden.

Figures: Nobuchi 1978a:pl. 1.

Distribution: Asia (Burma/ Cambodia/ Andaman Islands, Assam in India/ Malaya/ Sri Lanka/ Vietnam), Indonesia (Sumatra).

Hosts: *Balanocarpus heimii*, *Canarium euphyllum*, *Dipterocarpus pilosus*, *D. turbinatus*, *D. zeylanicus*.

References: **(ds)** Beaver & Browne 1978: 582; Beeson 1961: 301; Browne 1961c: 182, 1968a: 132–133, 1980c: 483, 1980d: 490; Nobuchi 1978a: 8; Ohno, Yoneyama, & Nakazawa 1987a: 89; Schedl 1959a: 492, 1959c: 167, 1969a: 205. **(tx)** Eggers 1923a: 215, 1925: 154, 1936a: 91, 1940d: 134; Nobuchi 1978a:pl. 1; Ohno, Yone-

- yama, & Nakazawa 1982b: 9; Schedl 1936h: 62, 64, 1942a: 183, 1958k: 145, 1959a: 492, 1959c: 167. *angulatus* Schedl 1942a: 183 (*Xyleboricus*).
Lectotype ♀; Malaya, Selangor, Buloh Forest Reserve; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 20. Synonymy: Wood 1989: 170.
References: (ds) Browne 1961c: 182. (tx) Schedl 1942a: 183, 1958k: 145, 1979c: 20; Wood, S. L. 1989: 170.
- medius** (Eggers) 1927c: 104 (*Webbia*). Lectotype ♀; Philippinen: Mindanao, Provinz Lanao, Kolambugan; USNM, Washington, designated by Anderson & Anderson 1971: 20.
Distribution: Asia (Andaman Islands in India/Malaya/ Sri Lanka/ Vietnam), Indonesia (Borneo, Java, Sumatra), Philippine Islands (Mindoro, Negros).
Hosts: *Canarium euphyllum*, *Diospyros* sp., *Dipterocarpus* spp., *Doonia zeylanica*, *Hopea adorata*, *Shorea* spp., *Stereulia* spp., *Terminalia bralata*.
Notes: (1) Schedl 1936h: 64 (to *Xyleboricus*, =*Arixyleborus*). Specimens reported from mainland SE Asia as *rugosipes* are actually this species (SLW).
References: (cn) Browne 1949e; Mathur & Singh 1960b: 57, 1961a: 36; Yunus & Hua 1980: 230. (ds) Beeson 1961: 301; Kalshoven 1959: 168; Mathur & Singh 1960b: 57, 1961a: 36; Schedl 1936d: 2, 1936j: 19; Yunus & Hua 1980: 230. (tx) Anderson, W. H. & Anderson 1971: 20; Eggers 1927c: 104–105; Schedl 1936g: 2, 1936h: 62, 64, 1939e: 333, 1942a: 170, 1942d: 26, 1950f: 43, 1950g: 895, 1952k: 162, 1958i: 215, 1958k: 145, 1959a: 492, 1979c: 151.
- minor** (Eggers) 1940d: 134 (*Xyleboricus*). Holotype ♀; Java (Kediri); Kalshoven Collection [ZMA, Amsterdam or Buitenzorg?], allotype (cotype) Eggers Collection, in NHMW, Wien.
Distribution: Asia (Malaya), Indonesia (Java).
Hosts: *Castanea tunggurut*, *Dalbergia* sp., *Dryobalanops oblongifolia*, *Palaquium maingayi*, *Shorea balanocarpoides*, *S. leprosula*.
Notes: (3) Schedl 1942d: 26 (described male).
References: (hb) Browne 1961c: 183; Kalshoven 1959c: 169. (ds) Browne 1961c: 183, 1983a: 555; Kalshoven 1959c: 169. (tx) Eggers 1940d: 134; Schedl 1936h: 62, 64, 1942d: 26, 1953c: 290, 1958k: 145, 1979c: 155.
- moestus** (Eggers) 1930d: 189 (*Xyleborus*). Holotype ♀; Assam: Shilong (6,000'); FRI, Dehra Dun.
Distribution: Asia (Assam, Bengal in India).
Hosts: *Quercus lamellosa*.
References: (ds) Beeson 1930: 249. (tx) Beeson 1930: 73, 249; Browne 1955: 350; Eggers 1930d: 189–190; Schedl 1958k: 145, 1979c: 157.
- morio** (Eggers) 1923a: 207 (*Xyleborus*). Lectotype ♀; Neu Guinea: Kaiserin Augustafluss; USNM, Washington, designated by Anderson & Anderson 1971: 21.
Distribution: New Guinea.
Notes: (1) Browne 1955: 350 (to *Arixyleborus*).
References: (bv) Gray, B. 1974c. (hb) Browne 1958c: 350; Gray, B. 1974c. (ds) Schedl 1969e: 156. (tx) Anderson, W. H. & Anderson 1971: 21; Browne 1955: 350; Eggers 1923a: 207, 1930d: 189; Schedl 1940b: 434–435, 1951i: 51, 1958k: 145.
- okadai** Browne 1985b: 293. Holotype ♀; Taliabu Island (Moluccas) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Moluccas Islands).
Hosts: *Shorea* sp.
References: (ds) Ohno, Yoneyama, & Nakazawa 1987b: 95. (tx) Browne 1985b: 293.
- orbiculatus** (Eggers) 1923a: 213 (*Xyleboricus*). Syntypes 2 ♀; Sinabang, Insel Simalur (sudlich Sumatra; 1 in RNH, Leiden, 1 in MCG, Genova).
Distribution: Indonesia (Simalur Island near Sumatra).
References: (tx) Browne 1963c: 57; Eggers 1923a: 213–214; Schedl 1936h: 64, 1958k: 145.
- pilosus** (Eggers) 1923a: 207 (*Xyleborus*). Holotype ♀; Sumatra; MCG, Genova.
Distribution: Indonesia (Sumatra).
References: (tx) Browne 1955: 350; Eggers 1923a: 207, 1940d: 146; Schedl 1958k: 145.
- puberulus** (Blandford) 1896b: 215 (*Xyleborus*). Holotype ♀; Sarawak, Borneo; BMNH, London.
Distribution: Indonesia (Borneo).
Notes: (1) Browne 1955: 351 (to *Arixyleborus*).
References: (ds) Browne 1981b: 598; Hagedorn 1910d: 109; Kleine 1913b: 162. (tx) Blandford 1986b: 215; Browne 1955: 351; Hagedorn 1910a: 156; Schedl 1958k: 145.
- pusillus** (Eggers) 1927c: 108 (*Webbia*). Lectotype ♀; Philippinen: Luzon, Provinz Mountain, Balaban; USNM, Washington, designated by Anderson & Anderson 1971: 27.
Distribution: Philippine Islands.
References: (ds) Schedl 1966b: 44. (tx) Anderson, W. H. & Anderson 1971: 27; Eggers 1927c: 108; Nobuchi 1983: 302; Schedl 1936h: 62, 64, 1958k: 145.
- rugosipes** Hopkins 1915b: 59. Holotype ♀; Pagbilao, Philippine Islands; USNM, Washington.
Distribution: Philippine Islands.
Hosts: *Dipterocarpus grandiflorus*.
References: (cn) Ishikura 1966. (cc) Browne 1958b. (hb) Beaver & Browne 1978: 582; Browne 1958b: 350, 1961c: 181. (ds) Bain 1974: 16; Beaver & Browne 1978: 582; Browne 1961c: 181, 1962c: 202, 1968a: 133; Choo, Woo, & Kim 1981: 201; Ishikura 1966; Kleine 1934a: 178; Nobuchi 1978a: 9, 1980; Ohno, Yoneyama, & Nakazawa

1987a: 89, 1987b: 95; Schedl 1959a: 492, 1959c: 167, 1966b: 44, 1966g: 31, 1971a: 276, 1971c: 364, 1972a: 144. (**tx**) Browne 1955: 351, 1962c: 202, 207, 1968a: 132; Hopkins 1915b: 59; Kalshoven 1959c: 168; Nobuchi 1978apl.1, 1983: 301; Ohno, Yoneyama, & Nakazawa 1982b: 9; Schedl 1952k: 161–162, 1958k: 145, 1959a: 492, 1959c: 167, 1965g: 22, 1966g: 38; Wylie & Shanahan 1977.

scabripennis (Blandford) 1896b: 216 (*Xyleborus*). Holotype ♀; Sarawak, Borneo; BMNH, London. Distribution: Asia (Malaya/ Sri Lanka), Indonesia (Borneo, Java, Sumatra).

Hosts: *Eugenia* sp., *Eupatorium pallescens*, *Ficus* sp., *Hopea ferrea*, *Melanorrhoea* sp., *Palaquium gutta*, *Rhodamnia trinervis*, *Shorea* spp.

References: (**cn**) Yunus & Hua 1980: 230. (**hb**) Beaver & Browne 1978: 583; Browne 1961c: 180; Kalshoven 1959a: 169. (**ds**) Beaver & Browne 1978: 583; Browne 1961c: 180, 1965a: 178, 1980b: 381; Hagedorn 1910d: 110; Kalshoven 1959c: 169; Kleine 1913b: 162, 1914b: 289; Ohno, Yoneyama, & Nakazawa 1987b: 95; Sampson 1919: 111; Schedl 1936d: 4, 1936j: 20, 1959a: 492. (**tx**) Blandford 1986b: 216; Browne 1955: 351; Eggers 1923a: 205–207, 1930d: 189; Hagedorn 1910a: 156; Sampson 1919: 111; Schedl 1936d: 4, 1936j: 20, 1942a: 171, 1942d: 6, 1951i: 44, 77, 1954a: 142, 1958k: 145, 1959a: 492, 1979c: 221.

seminitens (Blandford) 1895a: 322 (*Xyleborus*). Syntypes 2 ♀; Ceylon; 1 in BMNH, London.

Distribution: Asia (Sri Lanka).

Hosts: *Calophyllum walkeri*.

References: (**ds**) Beeson 1961: 309; Hagedorn 1910d: 110; Kleine 1913b: 162, 1914b: 274; Schedl 1959a: 511. (**tx**) Blandford 1895a: 322; Hagedorn 1910a: 156; Schedl 1959a: 511.

sublaevis (Eggers) 1927c: 104 (*Webbia*). Holotype ♀; Philippines: Mindanao, Provinz Surigao, Surigao; USNM, Washington.

Distribution: Philippine Islands (Mindanao).

Notes: (1) Schedl 1936h: 64 (to *Xyleboricus*, = *Arixyleborus*).

References: (**ds**) Schedl 1966b: 44. (**tx**) Anderson, W. H. & Anderson 1971: 32; Eggers 1927c: 104; Nobuchi 1983: 302; Schedl 1936h: 62, 64, 1958k: 145.

sus (Schedl) 1973e: 93 (*Xyleborus*). Holotype ♀; Sudost Neu Guinea, Moroka, Loria; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

Hosts: *Castanopsis acuminatissima*.

References: (**tx**) Schedl 1973e: 93, 1979c: 247.

varicus Schedl 1975f: 360. Holotype ♀; Upper Manki logging area, Bulolo, Morobe District, New Guinea; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1979g: 96.

References: (**tx**) Schedl 1975f: 360, 1979c: 264, 1979g: 96.

suturalis (Eggers) 1936c: 91 (*Xyleboricus*). Holotype ♀; Java (Kediri); Buitenzorg Collection, Java. Distribution: Asia (Malaya), Indonesia (Borneo, Java).

Hosts: *Adenanthera pavonina*, *Castanopsis sumatrana*, *Dipterocarpus baudii*, *Dryobalanops oblongifolia*, *Elacocarpus petiolatus*, *Eugenia* sp., *Fagraea fragrans*, *Grewia* sp., *Nephelium* sp., *Palaquium maingayi*, *Shorea balanocarpoides*, *S. leprosula*, *S. macroptera*, *Sicletenia macrophylla*. References: (**cc**) Browne 1958b. (**hb**) Browne 1958b, 1961c: 182; Kalshoven 1959c: 169. (**ds**) Beaver & Browne 1978: 583; Browne 1961c: 182, 1962c: 202, 1980d: 492; Eggers 1936c: 91; Kalshoven 1959c: 169; Schedl 1971c: 364. (**tx**) Browne 1962c: 207, 1963c: 57, 1972b: 27, fig.3; Eggers 1936c: 91; Schedl 1942d: 5, 1953c: 290, 1979c: 248.

talaureicus (Eggers) 1923a: 214 (*Xyleboricus*). Lectotype ♀; Talaure Inseln (zwischen Philippinen und Celebes); USNM, Washington, designated by Anderson & Anderson 1971: 33.

Distribution: Talaud Island S of Philippine Islands.

Notes: (1) Eggers 1927b: 391 (name originally spelled *talauticus*, lapsus calami, corrected; type locality in original publication given as Talaut, but corrected by Eggers in Beeson reprint to Talaure). References: (**hb**) Browne 1961c: 187–188. (**ds**) Schedl 1936d: 5. (**tx**) Anderson, W. H. & Anderson 1971: 33; Eggers 1923a: 214, 1927b: 391; Schedl 1936d: 5, 1936h: 62–63, 1942a: 170, 1952k: 162, 1960i: 112, 1979c: 249.

trux Schedl 1975f: 359. Holotype ♀; Upper Manki logging area, Bulolo, Morobe District, New Guinea; Schedl Collection in NHMW, Wien.

Notes: (3) This appears to be a synonym of *minor*, types compared (DEB).

Distribution: New Guinea.

References: (**tx**) Schedl 1975f: 359, 1979c: 257.

tuberculatus (Eggers) 1940d: 133 (*Xyleboricus*). Holotype ♀; Java (Kediri); Kalshoven Collection [ZMA, Amsterdam or Buitenzorg?; 2 cotypes in Eggers Collection, in NHMW, Wien].

Distribution: Indonesia (Java, Sumatra).

Hosts: *Cinchona* sp., *Dalbergia* sp., *Parkia speciosa*.

References: (**hb**) Kalshoven 1959c: 169. (**ds**) Kalshoven 1959c: 169. (**tx**) Eggers 1940d: 133–134; Schedl 1936h: 64, 1958k: 145.

yakushimanus (Murayama) 1955: 83 (*Xyleborus*). Holotype ♀; Japan: Miyagaura, Yakushima, Kagoshima pref., 0–50 m; Murayama Collection in USNM, Washington.

Figures: Yin & Huang 1981b: 569, Yin, Huang, & Li 1984: 161.

Distribution: Asia (Fujian, Sichuan, Xizang [Tibet] in China/ Japan).

Notes: (1) Nobuchi 1985c: 28 (to *Arixyleborus*).

References: (**ds**) Murayama 1955: 83; Nobuchi

1985c: 28; Yin & Huang 1981: 569. (**tx**) Murayama 1955: 83; Yin & Huang 1981b: 569; Yin, Huang, & Li 1984: 161.

Genus *Ambrosiodmus* Hopkins

AMBROSIDMUS HOPKINS 1915b: 55. Type-species: *Xyleborus tachygraphus* Zimmermann, original designation.

Phloeotrogus Motschulsky 1863: 512. Type-species: *Phloeotrogus obliquecaudata* Motschulsky, subsequent designation by Hopkins 1914: 127, name rejected by Plenary Powers in ICZN 1979: 151. Synonymy: Wood 1966: 83.

References: (**hb**) Wood, S. L. 1986a: 83. (**ds**) Wood, S. L. 1986a: 83. (**tx**) Arnett 1960: 1044; Motschulsky 1863: 512; Wood, S. L. 1986a: 83.

Brownia Nunberg 1963b: 37. Type-species: *Xyleborus illepidus* Schedl = *Pityophthorus obliquus* LeConte, original designation. Synonymy: Wood 1980c: 96.

References: (**tx**) Nunberg 1963b: 36–37; Wood, S. L. 1980c: 96.

Notes: (1) International Commission on Zoological Nomenclature [ICZN] 1979: 151 (the name *Phloeotrogus* rejected).

References: (**tx**) Beal & Massey 1945: 61, 147; Bright 1968b: 1288, 1296; Chamberlin 1939: 439–441; Hopkins 1915b: 10, 55–56; Wood, S. L. 1986a: 83.

addendus (Schedl) 1964e: 70 (*Xyleborus*). Holotype ♀; Cote d'Ivoire, Forêt du Banco; MNHN, Paris.

Figures: Nunberg 1963b: pl. 1.

Distribution: Africa (Ivory Coast).

References: (**tx**) Schedl 1964e: 70, 1979c: 11.

adustus (Eggers) 1932d: 295 (*Xyleborus*). Holotype ♀; Congostaat (Haut-Uele, Abimva); MRCB, Ter-vuren.

Distribution: Africa (Zaire).

References: (**tx**) Eggers 1932d: 295–296; Nunberg 1963b: 8, pl. 1; Schedl 1962j: 171.

aegir (Eggers) 1922b: 171 (*Xyleborus*). Syntypes ♀; Deutsch-Ostafrika; Hamburg Museum, lost, MNB, Berlin, and Eggers Collection (USNM, Washington or NHMW, Wien?).

Figures: Nunberg 1963b: pl. 2, Schedl 1962j: 171.

Distribution: Africa (Burundi/ Cameroun/ Kenya/ Equatorial Guinea/ Liberia/ Nigeria/ Ruanda/ Tanzania/ Uganda/ Zaire), Madagascar.

Hosts: *Acacia* sp., *Beilschmiedia louisii*, *Cassia laevigata*, *Cinchona ledgeriana*, *Coffea* sp., *Entandrophragma* sp., *Eucalyptus* spp., *Grevillea* spp., *Hagenia* sp., *Irvingia grandifolia*, *Lippia* sp., *Pachystelia* sp., *Persea americana*, *Veronia lasiopius*.

References: (**cn**) Ritchie 1935: 95–103. (**hb**) Schedl 1962j: 171. (**ds**) Browne 1973a: 281; Gardner 1957a: 32; Mayne & Donis 1962: 315; Roberts 1969: 129; Schedl 1938d: 451, 1962j: 171–172,

1965g: 20, 1965h: 112, 1967e: 215, 1969d: 6, 1970h: 180, 1971e: 4, 1977a: 130, 1982: 279; Wichmann 1954: 522. (**tx**) Eggers 1922b: 171, 1923a: 130, 181, 1932d: 297, 1935c: 309; Nunberg 1963b: 9–10, pl. 2; Powell, W. 1980: 29; Schedl 1937b: 402, 1948c: 665, 1950d: 8, 1952i: 16–17, 1952j: 2, 1953d: 69, 1955f: 260 1957d: 84, 1957e: 881, 1962j: 171–172, 1969i: 137, 1977b: 130, 1979c: 13.

holtzi Eggers 1922: 171 (*Xyleborus*). Holotype ♀; Aruscha (Deutsch-Ostafrika); Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1962j: 172.

References: (**tx**) Eggers 1922b: 171; Schedl 1950d: 8, 1952i: 16, 1962j: 172, 1979c: 119.

scabridus Schedl 1952i: 16 (*Xyleborus*). Holotype ♀; Congo Belge: Kivu, Mulungu; MRCB, Ter-vuren. Synonymy: Schedl 1962j: 172.

References: (**ds**) Mayne & Donis 1962: 322; Schedl 1952i: 16, 1955f: 260, 1962j: 172, 1971g: 193. (**tx**) Schedl 1952i: 16, 1979c: 220.

albizzianus (Schedl) 1950d: 30 (*Xyleborus*). Lectotype ♀; Congo Belge: Mulungu, Kivu; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 16.

Distribution: Africa (Chana/ Ivory Coast/ Kenya/ Nigeria/ Ruanda/ Uganda/ Zaire).

Hosts: *Acacia* sp., *Acalypha* sp., *Acridocarpus* sp., *Albizia gummifera*, *Baikiaea* sp., *Bosqueia* sp., *Celtis* sp., *Eucalyptus* sp., *Euphorbia teke*, *Hevea* sp., *Lasioliscus* sp., *Teclea nobilis*.

References: (**cn**) Mayne & Donis 1951: 334; Thompson, G. H. 1960. (**ec**) Mayne & Donis 1951: 334. (**hb**) Loytyniemi, Beaver, & Loytyniemi 1984; Roberts 1969: 130. (**ds**) Beaver & Loytyniemi 1985a: 68; Browne 1973a: 281, 1980c: 486; Gardner 1957a: 32; Mayne & Donis 1962: 315; Schedl 1962j: 174; Thompson, G. H. 1960, 1963: 70. (**tx**) Beaver & Loytyniemi 1985a: 68; Schedl 1950d: 30, 1954e: 51, 1955i: 212, 1962j: 174, 1979c: 16.

alsapanicus (Schedl) 1951i: 59 (*Xyleborus*). Syntypes ♀; Philippinen, Luzon, Vixcaya, Mt. Alsapan; Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands.

Notes: (1) Schedl 1979c: 16 (citation of holotype invalid).

References: (**ds**) Schedl 1966b: 46. (**tx**) Nobuchi 1983: 302; Schedl 1951i: 59, 1979c: 16.

anepotulus (Eggers) 1940d: 138 (*Xyleborus*). Holotype ♀; Java, Preanger (Tangkoeban Prahoe); Drescher Collection, cotype in Eggers Collection, in NHMW, Wien.

Distribution: Indonesia (Java).

References: (**hb**) Kalshoven 1959c: 137. (**ds**) Kalshoven 1959c: 137. (**tx**) Eggers 1939c: 119, 1940d: 138; Schedl 1951i: 43, 1952c: 65, 1954a: 138, 1979c: 20.

apicalis (Blandford) 1894d: 105 (*Xyleborus*). Holotype ♀; Japan [without locality]; BMNH, London.

Figures: Nobuchi 1966d: pl. 4, Yin, Huang, & Li 1984: 71.

Distribution: Asia (Bhutan/ Burma/ Anhui, Guangxi, Sichuan, Xizang [Tibet] in China/ Bengal in India/ Japan/ Korea).

Hosts: *Alnus hirsuta*, *A. japonica*, *A. siberica*, *Castanea crenata*, *Castanopsis* sp., *Ilex* sp., *Juglans* sp., *Machilus* sp., *Malus pumila*, *Pinus* sp., *Populus* sp., *Prunus* sp., *Quercus lamellosa*, *Schima* sp., *Symplocos* sp., *Ulmus* spp. *Vitis vinifera*.

References: (cn) Anonymous 1980g; Shiraki 1952; Yuasa 1935: 204. (ds) Anonymous 1980g; Cho 1955; Choo 1983: 103; Choo & Woo 1985: 166; Hagedorn 1910d: 99; Hill, D. S. 1987: 341; Kleine 1913b: 160, 1914b: 261, 277, 1934a: 172; Ko 1969: 283; Krivolutskaya & Kupyanskaya 1970; Murayama 1929b: 2, 1930b: 19, 1936a: 130, 1937b: 374, 1955: 104; Nobuchi 1966d: 26; Shiraki 1952; Yin & Huang 1981: 568; Yin, Huang, & Li 1984: 171; Yuasa 1935: 204. (tx) Blandford 1894d: 105; Choo 1983: 103; Eggers 1923a: 179; Hagedorn 1910a: 152; Murayama 1930b: 19–31, 1934c: 299, 1936a: 130, 1937b: 374, 1955: 104; Niisima 1909: 155, 1913a: 4; Nobuchi 1966d: 26, pl. 4, 1985c: 23; Nunberg 1959a: 414; Schedl 1934f: 1645; Yin & Huang 1981: 568–569. (ms) Mastumura 1931. *cristatus* Hagedorn 1908: 377 (*Xyleborus*). Syntypes 3 ♀; Kurseong et Barway (Himalaya); IRSNB, Brussels, preoccupied by Fabricius 1801.

References: (cn) Mathur & Singh 1961a: 84; Roonwal 1954: 59. (ds) Beeson 1930: 55, 231, 1961: 303; Hagedorn 1910d: 101; Kleine 1913b: 160, 1934a: 173; Mathur & Singh 1961a: 84; Roonwal 1954: 59. (tx) Beeson 1930; Eggers 1923a: 179, 1930d: 180, 1939b: 12; Hagedorn 1908: 377, 1910a: 153; Schedl 1953c: 300, 1964: 217.

fabricii Schedl 1964k: 217 (*Xyleborus*). Syntypes 3 ♀; Kurseong et Barway (Himalaya); IRSNB, Brussels, automatic. Synonymy: Wood 1989: 169.

References: (ds) Schedl 1964k: 217, 1965g: 22, 1975c: 383; Wood, S.L. 1989: 169.

atragranulatus (Schedl) 1937b: 400 (*Xyleborus*). Lectotype ♀; Madagascar (Sikora); Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 27.

Distribution: Madagascar.

Hosts: *Leptolaena multiflora*, *Palisandre rouge*, *Trema orientalis*.

References: (ds) Schedl 1977b: 132. (tx) Schedl 1937b: 400–401, 1955d: 272, 1977b: 132, 1979c: 27.

asperatus (Blandford) 1895a: 321 (*Xyleborus*). Holotype ♀; Ceylon, Dikoya; BMNH, London.

Figures: Nunberg 1978: 108.

Distribution: Asia (Guizhou, Xizang [Tibet] in

China/ Bengal, Tamil Nadu in India/ Malaya/ Sri Lanka), Indonesia (Java, Sumatra).

Hosts: *Citrus aurantium*, *Elaeocarpus petiolatus*, *Litsea zeylonica*, *Symplocos lola*.

References: (cn) Green 1912a: 35; Roonwal 1954: 19. (hb) Browne 1961c: 126–127; Kalshoven 1959c: 137; Speyer 1923: 19. (ds) Beeson 1929: 236, 1930: 39, 51, 215; Green 1912a: 35; Hagedorn 1910d: 99; Kalshoven 1959c: 138; Kleine 1913b: 160, 1914b: 274, 1934a: 172; Roonwal 1954: 19; Schedl 1959a: 493. (tx) Blandford 1895a: 321; Green 1912a: 38; Hagedorn 1910a: 152; Nunberg 1978: 107–108; Sampson 1911: 382–383; Schedl 1958k: 151, 1959a: 493.

nepotulus Eggers 1923: 179 (*Xyleborus*). Holotype ♀; Brastagi an der Ostküste Sumatras; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1958k: 151.

References: (tx) Eggers 1923a: 179–180, 1930d: 178, 1936c: 86–88, 1939c: 119, 1940d: 138, 1941b: 222–223; Schedl 1939f: 47, 1952c: 65, 1958k: 151, 1979c: 165.

citri Beeson 1930: 215 (*Xyleborus*). Syntypes ♀; Tista Valley, Darjeeling, Bengal, India; FRI, Dehra Dun. Synonymy: Wood 1989: 169.

References: (ds) Beeson 1930: 215. (tx) Beeson 1930: 215; Schedl 1959a: 494, 1979c: 58.

nepotulomorphus Eggers 1936c: 88 (*Xyleborus*). Holotype ♀; Java (G. Slamet); ZMA, Amsterdam. Synonymy: Schedl 1958k: 151.

References: (cn) Yunus & Hua 1980: 230. (ds) Yunus & Hua 1980: 230. (tx) Eggers 1936c: 88–89, 1939c: 119, 1940d: 138; Kalshoven 1959: 137; Nunberg 1959a: 432; Schedl 1942d: 4–5, 1950g: 895, 1951i: 42, 1954a: 142, 1958k: 151–152, 1959a: 111, 1979c: 165.

cristatulus Schedl 1971a: 284 (*Xyleborus*). Holotype ♀; Sabaragamuwa Prov., Sri Lanka, 2500 ft., 5 miles NNW Belangoda; University of Lund Collection. Synonymy: Wood 1989: 169. References: (tx) Schedl 1971a: 284, 1979c: 69; Wood, S. L. 1989: 169.

bispinosulus (Schedl) 1961c: 73 (*Xyleborus*). Holotype ♀; Java: G. Slamet; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Java).

References: (tx) Schedl 1961c: 73, 1979c: 41.

bostrichoides (Schedl) 1956a: 33 (*Xyleborus*). Holotype ♀; Angola: Malange; CAS, San Francisco. Distribution: Africa (Angola/ Ghana).

Hosts: *Albizia gummifera*, *Cassia siamea*.

References: (ds) Ferreira 1965: 1120; Schedl 1962j: 175. (tx) Schedl 1956a: 33, 1962j: 175, 1979c: 44.

brunneipes (Eggers) 1940d: 138 (*Xyleborus*). Holotype ♀; Java: Batoerraden (G. Slamet); Drescher Collection, cotypes in Eggers Collection, in NHMW, Wien.

Distribution: Asia (Malaya), Indonesia (Java).

Hosts: *Calamus* sp., *Daemonorops* sp.

- References: **(hb)** Beaver & Browne 1978: 605; Kalshoven 1959c: 158. **(ds)** Beaver & Browne 1978: 605; Browne 1955a: 190; Kalshoven 1935a: 14, 1959c: 138. **(tx)** Eggers 1940d: 138–139; Schedl 1942d: 6, 1958k: 148, 1979c: 48.
- camphorae** (Hagedorn) 1908: 378 (*Xyleborus*). Syntypes ♀; Mauritius; Hamburg Museum, lost, H. E. Andrews Collection, 1 in Schedl Collection in NHMW, Wien.
Distribution: Africa (Ghana/ Kenya/ Mauritania/ Mauritius Island), Madagascar.
Hosts: *Acacia* sp., *Alchornea* cf. *coriacea*, *Celtis zenkeri*, *Cinchona succubra*, *Garcinia verucosa*, *Laurus camphora*, *Pinus insularis*.
References: **(cn)** Anonymous 1953j: 25; Kleine 1932a: 305. **(ec)** Anonymous 1953j: 25. **(hb)** Kleine 1928: 307, 1932a: 305–307; Schedl 1977b: 132. **(ds)** Gardner 1957a: 32; Hagedorn 1910d: 99; Jones, Roberts, & Baker 1959: 13–14; Kleine 1913b: 160, 1932a: 305, 1934a: 172; Schedl 1962j: 176, 1969d: 11, 1970d: 233, 1977b: 132; Webb & Jones 1957: 25–26, 39, 43; Wichmann 1954: 518. **(tx)** Eggers 1923a: 181, 1931a: 20; Hagedorn 1908: 378, 1910a: 152, 1913b: 16–17; Schedl 1941d: 380, 1951j: 23, 1955i: 212, 1962j: 176, 1969d: 11, 1977b: 132; Wylie & Yule 1977.
- catharinensis** (Eggers) 1928c: 98 (*Xyleborus*). Syntypes 5 ♀; Brasil (Joinville, Sta. Catharina); SMTD, Dresden, and Eggers Collection, 1 Eggers syntype in NHMW, Wien.
Figures: Pedrosa-Macedo & Schonherr 1985: 28.
Distribution: South America (Brazil).
Hosts: *Cedrela fissilis*, *Pinus elliptica*.
References: **(ds)** Blackwelder 1947; Pedrosa-Macedo & Schonherr 1985: 28; Schedl 1976a: 53; Schonherr & Pedrosa-Macedo 1981: 55. **(tx)** Eggers 1928c: 98, 1931a: 19; Pedrosa-Macedo & Schonherr 1985: 28; Schedl 1979c: 54.
- coffeiceus** (Schedl) 1951b: 376 (*Xyleborus*). Holotype ♀; Surinam, Pl. Jagtlust; Schedl Collection in NHMW, Wien.
Figures: Schedl 1951b: 377.
Distribution: South America (Suriname).
References: **(cn)** Dinther 1961; Kalshoven 1963: 235. **(tx)** Schedl 1951b: 376–377, 1979c: 59.
- colossus** (Blandford) 1896b: 207 (*Xyleborus*). Holotype ♀; New Guinea, Humboldt; BMNH, London.
Distribution: New Guinea.
References: **(ds)** Hagedorn 1910d: 100; Kleine 1914b: 296. **(tx)** Blandford 1896b: 207; Hagedorn 1910a: 152; Schedl 1942c: 182, 1942d: 28, 1979c: 60.
- szentivanyi** Schedl 1968e: 267 (*Xyleborus*). Holotype ♀; Papuan Highlands Livestock and Rubber Experiment Station, Bisiamutu, Central District, 480 m; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 169.
References: **(tx)** Schedl 1968e: 267, 1979c: 248; Wood, S. L. 1989: 169.
- compressus** (Lea) 1893: 321 (*Xylopertha*). Syntypes ♀; Tamworth and Sidney; not located.
Figures: Bain 1976: 183.
Distribution: Australia (New South Wales, Queensland).
Hosts: *Araucaria* spp., *Argyrodendron* sp., *Castanospermum* sp., *Endiaderia palmerstonii*, *Eucalyptus* spp., *Flindersia* sp.
References: **(cn)** Froggatt 1926a, 1927; Kershaw 1973; Moore 1959: 188. **(hb)** Froggatt 1926a, 1927. **(ds)** Bain 1973b, 1976; Brimblecombe 1953: 28; Martyn et al. 1975: 26; Moore 1959: 188, 1961: 92; Schedl 1936g: 532, 1959d: 67, 1965g: 25, 1979a: 158. **(tx)** Bain 1976: 183; Lea 1893: 321, 1904: 106, 1910: 138; Nunberg 1959a: 420; Schedl 1936g: 532–533, 1942c: 163, 1955b: 278, 1959d: 67, 1965g: 25.
- consimilis** (Eggers) 1923a: 180 (*Xyleborus*). Holotype ♀; Sarawak auf Borneo; MCG, Genova.
Distribution: Asia (Tamil Nadu in India), Indonesia (Borneo).
References: **(ds)** Schedl 1975a. **(tx)** Eggers 1923a: 179–180, 1939c: 119.
- conspicuous** (Schedl) 1964g: 247 (*Xyleborus*). Holotype ♀; Sarawak; Semengoh; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Borneo).
Hosts: Rattan.
References: **(ds)** Beaver & Browne 1978: 606. **(tx)** Schedl 1964g: 247, 1979c: 64.
- crisatulus** (Schedl) 1953c: 300 (*Xyleborus*). Lectotype ♀; Malaya, Selangor Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 69.
Distribution: Asia (Fujian in China/ Malaya).
References: **(hb)** Browne 1961c: 150. **(ds)** Browne 1961c: 150; Schedl 1959a: 501. **(tx)** Browne 1962c: 204; Schedl 1953c: 300, 1959a: 501, 1979c: 69.
- declivispinatus** (Schedl) 1969b: 216 (*Xyleborus*). Holotype ♀; New Guinea, Karamui, Chimbu District; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: Derebe log, *Ficus* sp.
References: **(tx)** Schedl 1969b: 216–217, 1979c: 76.
- tectus** Schedl 1972h: 63 (*Xyleborus*). Holotype ♀; Pinaga, S. H. Dist., New Guinea; CSIRO, Canberra. Synonymy: Wood 1989: 169.
References: **(tx)** Schedl 1972h: 63, 1979c: 250; Wood, S. L. 1989: 169.
- desectus** (Eggers) 1923a: 167 (*Xyleborus*). Lectotype ♀; Los Banos (Luzon); USNM, Washington, designated by Anderson & Anderson 1971: 11.
Distribution: Asia (Malaya/ Vietnam), Indonesia (Java), Philippine Islands.
Notes: (3) Eggers 1923a: 168 (*vaspatorius* Hagedorn, nomen nudum, synonymy).
References: **(cn)** Yunus & Hia 1980: 230. **(hb)** Browne 1961c: 107; Kalshoven 1959c: 159. **(ds)** Kalshoven 1959c: 159; Schedl 1962b: 186, 1966b: 50. **(tx)** Anderson, W. H. & Anderson 1971: 11;

Eggers 1923a: 167–168; Nobuchi 1983: 302; Nunberg 1959a: 423; Schedl 1933d: 201, 1939e: 350, 1942a: 188.

desectus arduus Schedl (*Xyleborus*) 1942a: 188.

Syntypes, sex²; Kuala Lumpur, Malaya; Schedl Collection in NIHMW, Wien.

Notes: (1) Schedl 1979c: 78 (citation of holotype invalid).

References: (tx) Schedl 1942a: 188, 1979c: 78.

***devexulus* (Wood)** 1978b: 398 (*Xyleborus*). Holotype ♀ Homestead, Florida [USA]; Wood Collection, automatic.

Distribution: Antilles Islands (Dominican Republic in Hispaniola/ Puerto Rico), North America (S Florida).

Hosts: *Carya* sp., *Cedrela mexicana*.

References: (bv) Atkinson, Foltz, & Connor 1988.

(hb) Atkinson, Foltz, & Connor 1988; Deyrup &

Atkinson 1987a: 65. (ds) Bright 1985c: 173;

Deyrup & Atkinson 1987a: 65; Drooz 1985: 374;

Wood, S. L. 1982b: 805. (tx) Bright 1985c: 173;

Wood, S. L. 1978b: 398, 1982b: 805.

devexus Wood 1977b: 219 (*Xyleborus*). Holotype ♀; Homestead, Florida; Wood Collection, pre-occupied by Schedl 1977.

References: (tx) Wood, S. L. 1977b (December): 219, 1978b: 398.

woodi Schedl 1979j: 127 (*Xyleborus*). Holotype ♀; Homestead, Florida; Wood Collection, automatic.

Notes: (1) This unneeded replacement name has no status in nomenclature.

References: (tx) Schedl 1979j: 127.

***devexus* (Schedl)** 1977e: 45 (*Xyleborus*). Holotype ♀; Metapan, El Salvador; Schedl Collection in NIHMW, Wien.

Distribution: North America (El Salvador).

Hosts: *Quercus* sp.

References: (ds) Wood, S. L. 1982b: 805. (tx) Schedl 1977e (November): 45; Wood, S. L. 1982b: 805.

***dihingensis* (Eggers)** 1930d: 189 (*Xyleborus*). Holotype ♀; Assam (Upper Dihing Reserve, Lakhimpur); FRI, Dehra Dun.

Distribution: Asia (Assam in India).

Hosts: *Artocarpus lakoocha*, *Pterocarpus marsupium*.

Notes: (1) Originally named as a geographical race of *rufobrunneus*.

References: (tx) Eggers 1930d: 189, 198; Schedl 1979c: 80.

***diversipennis* (Schedl)** 1951j: 23 (*Xyleborus*). Lectotype ♀; Madagascar, Tsimbazaza; Schedl Collection in NIHMW, Wien, designated by Schedl 1979c: 83.

Distribution: Madagascar.

Hosts: *Mangifera indica*.

Notes: (3) Schedl 1953d: 96 (described male).

References: (hb) Paulian 1951: 29. (ds) Mayne & Donis 1962: 318; Paulian 1951: 29; Schedl 1977b:

134. (tx) Schedl 1951j: 23, 1953d: 69, 96–97, 1977b: 134.

***eichhoffi* (Schreiner)** 1882: 245 (*Xyleborus*). Holotype ♀; Guineae ora Afric.; USNM, Washington. Figures: Nunberg 1963: pl. 13, figs. 1–4.

Distribution: Africa (Angola/ Botswana/ Burundi/ Cameroons/ Central African Republic/ Congo/ Equatorial Guinea/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Malawi/ Mozambique/ Nigeria/ Ruanda/ Somalia/ Spanish Guinea/ South Africa/ Tanzania/ Togo/ Uganda/ Zaire/ Zambia/ Zimbabwe).

Hosts: *Acacia* sp., *Acridocarpus* sp., *Albizia* spp., *Brilschmidia* sp., *Brachystegia* sp., *Celtis* sp., *Croton* sp., *Diospyros* sp., *Ficus* sp., *Gossweil-erodendron* sp., *Gossypium hirsutum*, *Khaya* sp., *Klaineana* sp., *Lecanodiscus* sp., *Mammca* sp., *Mitragyna* sp., *Musanga* sp., *Napoleana* sp., *Olea* sp., *Podocarpus latifolius*, *Pycanthus* sp., *Sclerocarya* sp., *Turraecanthus* sp.

Notes: (3) Schedl 1957e: 881 (described male).

References: (en) Anonymous 1970c: 14. (hb)

Beaver & Loytyniemi 1955a: 68; Browne 1963a:

241; Loytyniemi, Beaver, & Loytyniemi 1954;

Schedl 1962j: 177. (ds) Anonymous 1970c: 14;

Beaver & Loytyniemi 1955a: 68; Browne 1963a:

241, 1973a: 281, 1980a: 373, 1980d: 493; Cachan

1957: 15, 43–53; Fairmaire 1892b; Ferreira 1965:

1122; Gardner 1957: 33; Hagedorn 1910d: 103;

Jones, Roberts, & Baker 1959: 13, 48–56; Kleine

1913b: 161, 1914b: 308; Lee 1971: 31; Nunberg

1961a: 330, 1963: 30; Roberts 1969: 132; Schedl

1939g: 170, 1952j: 4, 1959p: 20, 1962b: 60, 1962j:

177, 1962k: 1100, 1964e: 69, 1965e: 354, 1965h:

112, 1966a: 276, 1967e: 216, 1968b: 144, 1969d:

4, 1971e: 2, 1971f: 148, 1971g: 193, 1972e: 283,

1972k: 296, 1977d: 279, 1979b: 416, 1982: 279.

(tx) Beaver & Loytyniemi 1955a: 68; Eggers

1920: 125, 1927a: 198; Fairmaire 1892b; Hage-

dorn 1910a: 153, 1913: 256; Powell, W. 1980: 29;

Schanfuss 1891: 25–27; Schedl 1937c: 13, 1950d:

8, 1957d: 16–17, 1957e: 881, 1962j: 177, 1962k:

1100, 1979c: 88; Schreiner 1882: 248.

***congomus* Hagedorn** 1908: 379 (*Xyleborus*). Syn-

types 2 ♀; Kinchassa (Waelbroeck) Congo;

IRSNB, Brussels. Synonymy: Schedl 1957d: 17.

References: (ds) Hagedorn 1910d: 100; Kleine

1913b: 160, 1914b: 314; Mayne & Donis 1962:

317. (tx) Hagedorn 1908: 379, 1910a: 153;

Schedl 1939g: 170, 1950d: 12, 1952j: 4, 1957d:

17, 1962j: 177.

***facetus* (Schedl)** 1965f: 12 (*Xyleborus*). Holotype ♀; Uganda, Nyabeya; BMNH, London.

Distribution: Africa (Uganda).

Hosts: *Albizia* sp.

References: (ds) Schedl 1967e: 216. (tx) Schedl 1962j: 180, 1965f: 12, 1979c: 94.

***ferus* (Wood)** 1986c: 269 (*Ambrosiosmus*). Holotype ♀; Jalapa, Veracruz, Mexico; Wood Collection.

- Distribution: North America (Veracruz in Mexico).
 Hosts: *Quercus* sp.
 References: (tx) Wood, S. L. 1986c: 269.
- fraterculus** (Schaufuss) 1905: 19 (reprint p. 10) (*Xyleborus*). Syntypes ♀; Madagascar; Hamburg Museum, lost, except 1 in Schedl Collection [obtained from Eggers Collection?] in NHMW, Wien.
 Distribution: Madagascar.
 Hosts: *Mangifera indica*, *Pinus* sp.
 References: (hb) Paulian 1951: 29. (ds) Hagedorn 1910d: 104; Kleine 1913b: 161, 1914b: 326; Paulian 1951: 29; Schedl 1970d: 233. (tx) Anderson, W. H. & Anderson 1971: 13; Hagedorn 1910a: 154, 1913b: 256; Schaufuss 1905: 10, 19; Schedl 1937b: 400, 1939g: 173, 1951j: 20, 1953d: 69, 1961e: 144, 1970d: 233, 1977b: 134, 1979c: 100.
- funebri** (Schedl) 1976a: 73 (*Xyleborus*). Holotype ♀; Brasilien; Schedl Collection in NHMW, Wien.
 Distribution: South America (Brazil).
 Hosts: *Quercus* sp., *Pinus ochoterena*.
 References: (ds) Schedl 1976a: 73, 1977e: 43.
- funereus** (Lea) 1910: 139 (*Xyleborus*). Syntypes ♀; Queensland: Cairns; SAM, Adelaide?
 Figures: Nobuchi 1978a:pl. 3.
 Distribution: Australia (Queensland), Indonesia (Celebes, Java, Sumatra), New Guinea.
 Hosts: *Sterculia alata*.
 References: (hb) Kalshoven 1959c: 139. (ds) Blackwelder 1947: 779; Brimblecombe 1953: 29; Ferrer 1942; Kalshoven 1959c: 139; Nobuchi 1978a: 30; Ohno, Yoneyama, & Narazawa 1987: 94; Ohno et al. 1988a: 94; Schedl 1933e: 108, 1961c: 71, 1966b: 94, 1969a: 207, 1971c: 368, 1971f: 148. (tx) Lea 1910: 139; Nobuchi 1978a:pl. 3, 1983: 302; Schedl 1939f: 45, 1940a: 365, 1951i: 50, 1954a: 141, 1955b: 281, 1958h: 498, 1961e: 71.
- nepos** Eggers 1923a: 198 (*Xyleborus*). Lectotype ♀; Java; USNM, Washington, designated by Anderson & Anderson 1971: 198. Synonymy: Schedl 1933e: 103.
 References: (cn) Mathur & Singh 1961a: 69. (ds) Beeson 1930: 74, 250, 1961: 308; Kalshoven 1959: 139; Kleine 1934a: 174; Mathur & Singh 1961a: 69; Schedl 1938g: 426. (tx) Anderson, W. H. & Anderson 1971: 21; Beeson 1930; Eggers 1923a: 179, 198–200, 1927b: 407, 1930d: 192; Schedl 1933e: 103, 1939f: 45, 1940a: 365, 1951i: 50, 1979c: 165; Wood, S. L. 1975a: 23.
- nepos robustus** Schedl 1933c: 103 (*Xyleborus*). Syntypes ♀; Mt. Maquiling, Laguna, Luzon [Philippines]; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 169–170.
 Notes: (1) Schedl 1979c: 165 (citation of holotype invalid).
 References: (ds) Schedl 1966b: 56. (tx) Schedl 1933e: 103, 1958h: 498, 1979c: 165; Wood, S. L. 1989: 169–170.
- signatus** Schedl 1948f: 278 (*Xyleborus*). Holotype ♀; Mexico; Schedl Collection, in NHMW, Wien. Synonymy: Wood 1975a: 23.
 Notes: (3) The holotype of this species was either mislabeled or represents an interception that is not established in Mexico.
 References: (tx) Schedl 1948f: 278, 1979c: 228; Wood, S. L. 1975a: 23.
- funestus** (Schedl) 1979g: 107 (*Xyleborus*). Holotype ♀; Papua New Guinea; Schedl Collection in NHMW, Wien.
 Distribution: New Guinea.
 References: (tx) Schedl 1979g: 107.
- hagedorni** (Iglesias) 1914b: 128 (*Xyleborus*). Syntypes ♂ ♀; Butontan, S. Paulo; MZUSP, Sao Paulo. Figures: Pedrosa-Macedo & Schonherr 1985:31.
 Distribution: North America (Costa Rica/ Guatemala/ Honduras/ Oaxaca, Veracruz in Mexico/ Panama), South America (Brazil/ Colombia/ Venezuela).
 Hosts: *Acacia* sp., *Cedrela mexicana*, *Mangifera indica*, *Ochroma* sp., *Pinus elliottii*, *Terminalia* sp., *Theobroma cacao*.
 References: (cn) Azavedo 1924b: 180–181; Costa Lima 1956; Mathur & Singh 1961a: 84, 1961b: 14. (hb) Costa Lima 1956. (ds) Blackwelder 1947: 780; Costa Lima 1936, 1956; Kleine 1934a: 173; Mathur & Singh 1961a: 84, 1961b: 14; Schedl 1967d: 3, 1970e: 83, 1972g: 45, 1976a: 54; Schonherr & Pedrosa-Macedo 1981: 56. (tx) Costa Lima 1956; Iglesias 1914b: 128, 131; Pedrosa-Macedo & Schonherr 1985: 31; Schedl 1979c: 115.
- guatemalensis** Hopkins 1915b: 56 (*Ambrosiodmus*). Holotype ♀; Trece Aguas, Alta Verapaz, Guatemala; USNM, Washington. Synonymy: Wood 1989: 170.
 References: (hb) Atkinson & Equihua 1986a: 421; Wood, S. L. 1982b: 808. (ds) Atkinson & Equihua 1985b: 237, 1986a: 421; Blackwelder 1947: 779; Estrada & Atkinson 1988: 206; Schedl 1961c: 2; Wood, S. L. 1961c: 2, 1982b: 808. (tx) Hopkins 1915b: 55–56; Wood, S. L. 1961c: 3, 1972e: 198, 1982b: 808, 1989: 170.
- anisandrus** Schedl 1954b: 44 (*Xyleborus*). Syntypes ♀; Rio Claro, Brazil; Schedl Collection in NHMW, Wien. Synonymy: Wood 1972e: 198.
 References: (tx) Schedl 1954b: 44; Wood, S. L. 1972c: 198.
- incertus** (Schedl) 1969b: 217 (*Xyleborus*). Holotype ♀; New Guinea, Jimi Valley Rain Forest; CSIRO, Canberra.
 Distribution: New Guinea.
 Hosts: *Harpullia* sp.
 References: (tx) Schedl 1969b: 217–218, 1979c: 123.

inferior (Schedl) 1976a: 74 (*Xyleborus*). Holotype ♀; Serra Lombart (Lima), Amapa [Brazil]; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 74.

imminatus (Schedl) 1970d: 236 (*Xyleborus*). Holotype ♀; Madagascar, Perinet; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
Hosts: *Alchornia* cf. *coriacea*, *Eucalyptus* sp., *Footidia elusoides*, *Ocotea* sp., *Pinus insularis*.
References: (ds) Schedl 1977b: 135. (tx) Schedl 1970d: 236, 1977b: 135, 1979c: 124.

inoblitus (Schedl) 1939g: 173 (*Xyleborus*). Lectotype ♀; not stated, Schedl (1962j: 182) gives Insel Ukerewe; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 124.
Distribution: Africa (Cameroon/ South Africa/ Ukerewe Island in Tanzania).
References: (ds) Schedl 1964f: 618. (tx) Schedl 1939g: 173, 1941d: 402, 1950d: 3, 1954e: 79, 1957b: 150–151, 1962j: 182, 1965f: 12, 1979c: 124.

inopinatus (Schedl) 1970e: 94 (*Xyleborus*). Holotype ♀; Nied. Guayana, Para Dist. [Suriname]; Schedl Collection in NHMW, Wien.
Distribution: South America (Suriname).
References: (tx) Schedl 1970e: 94–95, 1979c: 125.

klapperichi Bright 1985c: 178. Holotype ♀; Dominican Republic; CNCI, Ottawa.
Distribution: Antilles Islands (Dominican Republic in Hispanola).
References: (tx) Bright 1985c: 178.

lantanae (Eggers) 1930d: 180 (*Xyleborus*). Holotype ♀; Sagar, Mysore, Karnataka; FRI, Dehra Dun.
Figures: Kumar & Chandra 1977: 44.
Distribution: Asia (Burma/ Assam, Bengal in India).
Hosts: *Albizia lebbek*, *Anogeissus acuminata*, *Beischmiedia sikkimensis*, *Gmelina arborea*, *Lantana* sp., *Michelia champaca*, *Shorea scutulata*.
References: (cn) Mathur & Singh 1960b: 17, 1961a: 52; Roonwal 1954: 47. (ds) Beeson 1930; Kleine 1934a: 174; Mathur & Singh 1960b: 17, 1961a: 52; Roonwal 1954: 47. (tx) Beeson 1930: 68, 244; Eggers 1930d: 180–181; Kumar & Chandra 1977: 35, 44.

latecompressus (Schedl) 1936g: 532 (*Xyleborus*). Lectotype ♀; N. S. Wales: Upper Williams R., Australia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 136.
Distribution: Australia (New South Wales, Victoria).
References: (ds) Brimblecombe 1953: 29; Schedl 1936g: 532, 1975h: 352, 1979a: 158. (tx) Schedl 1936g: 532–533, 1979c: 136.

latisulcatus (Eggers) 1940d: 142 (*Xyleborus*). Holotype ♀; Java (Batoerraden, G. Slamet); USNM, Washington.
Distribution: Indonesia (Java).

References: (tx) Anderson, W. H. & Anderson 1971: 17; Eggers 1940d: 142; Schedl 1951i: 43, 1979c: 137.

lecontei Hopkins 1915b: 56. Holotype ♀; Keene, Florida [USA]; USNM, Washington.

Figures: Bright 1972d: 95.

Distribution: Antilles Islands (Bahama Islands/ Cuba/ Guadeloupe/ Dominican Republic in Hispanola/ Puerto Rico), North America (Florida, Louisiana in USA).

Hosts: *Bishofia javanica*, *Carya* sp., *Cedrela mexicana*, *Coffea* sp., *Dacryodes* sp., *Diphysia robinoides*, *Ichthyomethia communis*, *Persea borbonica*, *Pinus occidentalis*, *Pleiogynum* sp., *Terminalia* sp., *Zanthoxylum flavum*.

References: (bv) Atkinson, Foltz, & Connor 1988. (cn) Anonymous 1962j; Vasquez 1988. (hb) Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 269; Beal & Massey 1945: 55–56; Chamberlin 1939: 340; Deyrup & Atkinson 1987a: 65; Wood, S. L. 1982b: 807. (ds) Anonymous 1962j; Baker, W. L. 1972: 269, 271; Beal & Massey 1945: 55–56; Blatchley & Leng 1916: 614; Bright 1968b: 1302–1303, 1972d: 76, 1985c: 173; Chamberlin 1939: 340; Chapin & Oliver 1986; DeLeon 1942a; Deyrup & Atkinson 1987a: 65; Drooz 1985: 374; Leng 1920: 341; Martorell 1945: 470; Vasquez 1988; Wolcott 1948: 384; Wood, S. L. 1982b: 807; Woodruff 1962. (tx) Beal & Massey 1945: 55–56, 147–148; Blatchley & Leng 1916: 614; Bright 1968b: 1302, 1972d: 76, 95, 1985c: 173; Chamberlin 1939: 340; Hopkins 1915b: 56; Wood, S. L. 1972e: 199, 1982b: 807.

gundlachi Eggers 1931a: 20 (*Xyleborus*). Holotype ♀; Cuba; MNB, Berlin. Synonymy: Wood 1972e: 199.

References: (ds) Blackwelder 1947: 780; Schedl 1966f: 87, 1970e: 84. (tx) Eggers 1931a: 20, 30–31, 1940a: 108; Schedl 1954b: 44; Wood, S. L. 1972e: 199.

lewisi (Blandford) 1894d: 104 (*Xyleborus*). Syn-types 9 ♀; Japan: Nikko, Hakono, Miyanoshta; BMNH, London.

Figures: Nakane et al. 1963: 384, Nobuchi 1967: pl. 1.

Distribution: Asia (Burma/ Guangdong, Sichuan, Xizang [Tibet], Yunnan in China/ Assam, Bengal, Tamil Nadu in India/ Japan/ Korea/ Malaya/ Sri Lanka/ Taiwan/ Vietnam), Indonesia (Borneo, Java, Sumatra), Philippine Islands.

Hosts: *Acer* spp., *Ailanthus altissima*, *Alnus* sp., *Amoora wallichii*, *Castanopsis cuspidata*, *C. indica*, *Cinnamomum camphora*, *C. obtusifolium*, *Evodia* sp., *Ficus carica*, *Hopea parviflora*, *Mesua myriocarpa*, *Phoebe lanceolata*, *Poinciana alata*, *Populus* sp., *Prunus* sp., *Pueraria thunbergiana*, *Quercus stenophylla*, *Rhus sylvestris*, *Salix* sp., *Terminalia myriocarpa*, *Vatica lanceaefolia*.

Notes: (3) Schedl Collection contained *pellitus*, nomen nudum, a synonym.

References: (ay) Murayama 1933a: 2. (cn) Murayama 1954a: 17; Shiraki 1957. (cc) Inouye et al. 1955: 98. (hb) Inouye et al. 1955: 98. (ds) Blandford 1895a; Browne 1966: 249, 1980c: 483; Cho 1957; Choo 1983: 106; Choo & Woo 1985: 166; Hagedorn 1910d: 106; Kleine 1913b: 101, 1914b: 261, 1934a: 174; Ko 1969: 285; Murayama 1929b: 2, 1930b: 19, 1933b: 7, 1934d: 509, 1936a: 134, 1937b: 372, 375, 1949c: 103, 1950b: 296, 1953a: 20, 1953c: 159, 1954a: 17, 1954b: 179, 1955: 100, 104; Nakane et al. 1963: 384; Nobuchi 1967: 22; Ohno, Yoneyama, & Nakazawa 1987a: 88; Schedl 1975a; Shiraki 1952; Yin & Huang 1981: 566. (tx) Blandford 1894d: 104, Browne 1961c: 109, 1966: 249; Eggers 1932d: 287, 1939c: 114; Hagedorn 1904d, 1910a: 155; Murayama 1930b: 19–31, 1933a: 2, 1934c: 299, 1934d: 509–512, 1936a: 134–135, 1937b: 372, 374–375, 1950b: 1296, 1953a: 20, 1955: 100, 104; Nakane et al. 1963: 384; Nüsima 1910a: 11; Nobuchi 1967: pl. 1, 1983: 303, 1985c: 25; Schedl 1934f: 1646, 1962p: 208, 1979c: 138; Yin & Huang 1981: 566.

tegalensis Eggers 1923a: 181 (*Xyleborus*). Syntypes 3 ♀; Simpar Tegal (Java) und Rimbe Pengadang (Sumatra); 1 syntype in RNH, Leiden, 1 in SMTD, Dresden, 1 in Eggers Collection, this Eggers syntype in NHMW, Wien. Synonymy: Schedl 1950g: 894.

Notes: (3) Schedl 1951i: 60 (described male). References: (ay) Gardner 1934b: 1–17. (cn) Mathur & Singh 1961b: 34; Roonwal 1954: 66. (hb) Kalshoven 1959c: 136. (ds) Beeson 1930: 86, 262; Browne 1961c: 108–109; Kalshoven 1959c: 136; Mathur & Singh 1961b: 34; Roonwal 1954: 66; Schedl 1936d: 5, 1961c: 70, 1962b: 185, 1965g: 22, 1974c: 262, 1975a. (tx) Beeson 1930; Eggers 1923a: 181, 1927b: 390, 407; Gardner 1934b; Schedl 1936d: 5, 1937e: 544, 1942d: 4, 1950g: 894–895, 1951i: 42, 60, 1954a: 143, 1954c: 154, 1962p: 208, 1965g: 22, 1979c: 251.

lewekianus Eggers 1923a: 181 (*Xyleborus*). Holotype ♀; Nilgiri Hills (Indien); Hamburg Museum, lost. Synonymy: Wood 1989: 170.

References: (cn) Mathur & Singh 1960b: 58. (ds) Mathur & Singh 1960b: 58; Schedl 1973c: 379. (tx) Eggers 1923a: 181.

loebli (Schedl) 1979b: 413 (*Xyleborus*). Holotype ♀; Cote d'Ivoire, Man-Orstom; Schedl Collection in NHMW, Wien.

Distribution: Africa (Ivory Coast).

References: (tx) Schedl 1979b: 413.

mahafali (Schedl) 1953d: 96 (*Xyleborus*). Lectotype ♀; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 145.

Distribution: Madagascar.

Hosts: *Elaeocarpus sericens*, *Harongana mada-gascarensis*, *Homalium planiflorum*, *Leptolaena multiflora*, *Neodypsis baroni*, *Terminalia mantaly*, *Trema orientalis*.

References: (hb) Schedl 1977b: 136. (ds) Schedl 1977b: 136. (tx) Schedl 1953d: 96, 1962j: 185, 1977b: 136, 1979c: 145.

mamibillae (Browne) 1970: 573 (*Xyleborus*). Holotype ♀; Nigeria: Mambilla Plateau, Gyl Nyaki at 5000 ft.; BMNH, London.

Distribution: Africa (Nigeria).

References: (tx) Browne 1970: 573–574; Roberts 1969: 132.

minor (Stebbing) 1909b: 20 (*Phloeosinus*). Syntypes 2 ♀; Assam: labeled Kochujan, printed as Goalpara Sal Forests; FRI, Dehra Dun.

Distribution: Asia (Bangladesh/ Bhutan/ Burma/ Assam, Bengal, Maharashtra, Uttar Pradesh in India/ Nepal/ Thailand/ Vietnam).

Hosts: *Bombax malabaricum*, *Dipterocarpus obtusifolius*, *Sahnalia malabarica*, *Shorea robusta*, *Tectona grandis*, *Terminalia myriocarpa*.

Notes: (3) Schedl 1964k: 314 (*himalayensis* Eggers, nomen nudum, synonymy).

References: (cn) Chandra 1981; Mathur & Singh 1961a: 13, 1961b: 14; Roonwal 1954: 51; Roonwal, Chatterjee, & Thapa 1961b: 7; Stebbing 1914: 549. (cc) Stebbing 1914: 549. (hb) Beaver & Browne 1975: 298; Chandra 1981; Stebbing 1909b: 20, 1914: 549; Zocchi 1956: 141. (ds) Beaver & Browne 1975a: 298; Beeson 1922: 495–496, 1930: 70–73, 246; Browne 1981a: 126; Kleine 1912b: 183, 1914b: 277; Mathur & Singh 1961a: 13, 1961b: 14; Roonwal 1954: 51; Roonwal, Chatterjee, & Thapa 1961b: 7; Schedl 1973b: 211, 1975c: 383. (tx) Beeson 1922: 496, 1930: 246; Schedl 1950g: 893, 1962p: 208, 1964k: 314; Sokanovskii 1960: 675; Stebbing 1907: 39, 1909b: 20, 1909b: 20, 1914: 549; Zocchi 1956: 141.

crassus Hagedorn 1910b: 8 (*Xyleborus*). Holotype ♀; Sumatra; Hamburg Museum, lost. Synonymy: Schedl 1962p: 208 (apparently either an error in labeling or in synonymy, since this species is not known to occur in Sumatra).

References: (ds) Hagedorn 1910d: 101; Kleine 1913b: 160, 1914b: 286; Schedl 1964g: 242. (tx) Eggers 1925: 159; Hagedorn 1910a: 153, 1910b: 8; Schedl 1962p: 208, 1964g: 242.

natalensis (Schaufuss) 1891: 20 (*Xyleborus*). Holotype ♀; Natal; Hamburg Museum, lost.

Distribution: Africa (Angola/ Ghana/ Guinea/ South Africa/ Tanzania/ Zaire), Madagascar.

Hosts: *Eucalyptus* sp., *Polyporus* sp., *Prunus salasii*, *Pterocarpus* sp.

References: (ds) Beeson 1930: 246; Hagedorn 1910b: 107; Kleine 1913b: 162, 1914b: 319, 326. (tx) Eggers 1923a: 181, 1932d: 295–297; Hagedorn 1910a: 155, 1913b: 256; Schaufuss 1891: 20; Schedl 1957b: 150–151, 1962j: 182, 1962k: 1101.

neglectus (Schedl) 1957d: 16 (*Xyleborus*). Lectotype ♀; Bekwai, Gold Coast; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 220, automatic.

Distribution: Africa (Ghana/ Zaire).

Hosts: *Eucalyptus citriodora*, *Triplochiton scleroxylon*.

References: (ds) Schedl 1962b: 60, 1962j: 183, 1962k: 1101, 1964j: 42, 1967e: 218. (tx) Schedl 1957d: 16, 1962j: 183, 1979c: 220.

scabrior Schedl 1954e: 79 (*Xyleborus*). Lectotype ♀; Bekwai, Gold Coast; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 220, preoccupied by Schedl 1953.

References: (tx) Schedl 1954e: 54, 70, 79, 1957d: 16, 1962j: 183, 1962k: 1101, 1979c: 220.

nepocranus (Schedl) 1939f: 45 (*Xyleborus*). Lectotype ♀; Java, Bandjar; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 165. Distribution: Indonesia (Java).

Hosts: Rattan.

References: (hb) Kalshoven 1959c: 137. (ds) Kalshoven 1959c: 137; Schedl 1966b: 62. (tx) Nöbuchi 1983: 303; Schedl 1939f: 45–46, 1979c: 165.

nigripennis (Schedl) 1951i: 68 (*Xyleborus*). Holotype ♀; Celebes, Tominibocht; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Celebes).

References: (tx) Schedl 1951i: 68, 1979c: 167.

nodulosus (Eggers) 1941b: 223 (*Xyleborus*). Holotype ♀; Fukien (Kuatun, 2300 m), China; Alexander König Museum, Bonn.

Distribution: Asia (Fujian in China).

Notes: (3) Schedl 1957d: 86 proposed the replacement name *permodulus* Schedl for this species when in fact it was not a homonym.

References: (tx) Eggers 1941b: 223–224; Schedl 1957d: 85, 1965c: 72.

permodulus Schedl 1957d: 85. Holotype ♀; Fukien (Kuatun, 2300 m), China; Alexander König Museum, Bonn.

References: (tx) Browne 1962b: 50; Schedl 1957d: 85.

obliquecaudata Motschulsky 1863: 513. Syntypes 4 ♀; Des Montagnes de Nura-Ellia, syntypes labeled India Occidentale; IZM, Moscow.

Distribution: Asia (Sri Lanka).

Hosts: *Kududavula* sp.

Notes: (1) Wood 1969c: 119 (syntypes examined).

(3) A specimen of *Euwallacea validus* intercepted in Canada was erroneously reported by MacNay 1955 under this name.

References: (cn) Green 1916: 608–636; MacNay 1955: 109, 134; Mathur & Singh 1960b: 43. (ds) Gemminger & Harold 1872: 2692; Hagedorn 1910d: 107; Kleine 1913b: 167, 1914b: 274; Mathur & Singh 1960b: 43; Murayama 1936b: 114; Schedl 1959a: 500. (tx) Eichhoff 1876a: 378–379, 1878b: 351; Hagedorn 1910a: 513, 1910b; Hopkins 1914:

127; Motschulsky 1863: 513, 1866: 403; Schedl 1934g: 1646, 1959a: 500; Wood, S. L. 1969c: 119. *carinipennis* Eichhoff 1868c: 152 (*Xyleborus*).

Holotype ♀; Ceylon; Hamburg Museum, lost.

Synonymy: Eichhoff 1876a: 378.

References: (ds) Gemminger & Harold 1872: 2685. (tx) Eichhoff 1868c: 152, 1876a: 378–379, 1878b: 61, 351, 489; Schedl 1959a: 500.

semirufus Schedl 1959a: 499 (*Xyleborus*). Holotype ♀; Ceylon: Ramboda; BMNH, London. Synonymy: Wood 1989: 170.

References: (ds) Schedl 1959a: 499. (tx) Schedl 1959a: 499, 1979c: 224.

obliquus (LeConte) 1878a: 432 (*Pityophthorus*). Holotype ♀; Enterprise, Florida; MCZ, Cambridge.

Figures: Bright 1968b: 1299.

Distribution: Africa (Cameroon/ Kenya/ South Africa/ Tanzania/ Uganda/ Zaire/ Zambia), Antilles Islands (Dominican Republic in Hispaniola/ Guadeloupe/ Puerto Rico), North America (Guatemala/ Michoacan in Mexico/ District of Columbia, Florida, Georgia, Louisiana, Mississippi, North Carolina, Virginia in USA), South America (Brazil/ Colombia).

Hosts: *Acacia* sp., *Albizzia* spp., *Betula* sp., *Carya* spp., *Castania dentata*, *Celtis* spp., *Cinchona* sp., *Citrus* sp., *Croton* sp., *Entandrophragma* sp., *Eucalyptus* sp., *Ficus* sp., *Gossweilerodendron* sp., *Grevillea* sp., *Hoslundia* sp., *Lindera* sp., *Persea* sp., *Strombosia* sp.

Notes: (1) Blackman 1928b: 148 (to *Ambrosiodmus*)

References: (cn) Swaine 1918a: 104. (hb) Atkinson & Equihua 1986a: 421; Chamberlin 1939: 440; Swaine 1918a: 104. (ds) Atkinson & Equihua 1986a: 421, 1988: 85; Atkinson et al 1991: 160; Baker, W. L. 1972: 271; Beaver & Loytyniemi 1985a: 68; Blatchley & Leng 1916: 633; Bright 1968b: 1301, 1981c: 157, 1985c: 173; Chamberlin 1939: 440; Chapin & Oliver 1986; Hagedorn 1910d: 73; Henshaw 1882: 268, 1885: 148; Kleine 1914b: 400; Leng 1920: 341; Schwarz 1878d: 468; Swaine 1909: 136; Weber, B. C. & McPherson 1991: 49; Wood, S. L. 1982b: 804. (tx) Blackman 1928b: 148; Blatchley & Leng 1916: 633; Bright 1968a: 636–639, 1968b: 1299, 1301, 1985c: 173, 177; Chamberlin 1939: 440; Hagedorn 1910a: 101; LeConte 1878a: 432, 468; Swaine 1909: 136, 1918a: 104; Wood, S. L. 1966b: 32, 1975b: 394, 1982b: 804.

gilvipes Blandford 1898b: 205 (*Xyleborus*). Holotype ♀; Zapote, Guatemala; BMNH, London. Synonymy: Wood 1975b: 394.

References: (ds) Blackwelder 1947: 779; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 371. (tx) Blandford 1898b: 205; Hagedorn 1910a: 154; Schedl 1936i: 110; Wood, S. L. 1972e: 198, 1975b: 394.

linderae Hopkins 1915b: 56 (*Ambrosiodmus*).

- Holotype ♀; Rosslyn, Virginia, USA; USNM, Washington. Synonymy: Bright 1968b: 1301. References: **(hb)** Baker, W. L. 1972: 269; Beal & Massey 1945: 148–159; Chamberlin 1939: 440. **(ds)** Baker, W. L. 1972: 269; Beal & Massey 1945: 148–149; Blatchley & Leng 1916: 613; Chamberlin 1939: 440; Kleine 1934a: 177; Leng 1920: 341. **(tx)** Beal & Massey 1945: 148–149; Blatchley & Leng 1916: 613; Bright 1968b: 1301; Chamberlin 1939: 440; Hopkins 1915b: 55–56.
- brasilienis* Eggers 1928c: 96 (*Xyleborus*). Lectotype ♀; Blumenau, Santa Catarina, Brazil; USNM, Washington, designated by Anderson & Anderson 1971: 7. Synonymy: Wood 1975b: 394. References: **(cn)** Costa Lima 1956. **(hb)** Costa Lima 1956. **(ds)** Blackwelder 1947: 779; Costa Lima 1956; Pedrosa-Macedo & Schonherr 1985: 27; Roba 1935: 340; Schedl 1966f: 87, 1967d: 3, 1970e: 83, 1972g: 44, 1976a: 53; Wood, S. L. 1961c: 1. **(tx)** Anderson, W. H. & Anderson 1971: 7; Costa Lima 1956; Eggers 1928c: 96, 1941a: 101; Pedrosa-Macedo & Schonherr 1985: 27; Schedl 1979c: 45; Wood, S. L. 1961c: 1, 1975b: 394.
- mexicanus* Eggers 1931a: 19 (*Xyleborus*). Holotype ♀; Maravatio [presumably Michoacan, Mexico]; MNB, Berlin. Synonymy: Wood 1972e: 198. References: **(ds)** Blackwelder 1947: 780; Ferrer 1942. **(tx)** Eggers 1931a: 19–20; Schedl 1940a: 361; Wood, S. L. 1972e: 198.
- pseudobrasilienis* Eggers 1941a: 101 (*Xyleborus*). Holotype ♀; Guadeloupe (Coubeyre); Eggers Collection, in NHMW, Wien. Synonymy: Bright 1985c: 177. References: **(tx)** Bright 1985c: 77; Eggers 1941a: 101; Schedl 1979c: 200.
- illegidus* Schedl 1941d: 402 (*Xyleborus*). Holotype ♀; Deutsch-Ostafrika; Schedl Collection in NHMW, Wien. Synonymy: Wood 1975b: 394. References: **(ds)** Browne 1973a: 282; Gardner 1957a: 33; Mayne & Donis 1962: 319; Schedl 1962h: 60, 1962j: 181, 1962k: 1100; Wichmann 1954: 522. **(tx)** Numberg 1963b: 36, pl. 17–18; Powell, W. 1980: 29; Schedl 1941d: 402, 1950c: 209, 1950d: 3, 8, 1952j: 3, 1953d: 96, 1955i: 212, 1961e: 144, 1962j: 181, 1962k: 1100, 1979c: 120; Wood, S. L. 1975b: 394.
- melanarius* Schedl 1978c: 307 (*Xyleborus*). Holotype ♀; Brasilien, Nova Teutonia, 300–500 m; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 170. References: **(tx)** Schedl 1978c: 307; Wood, S. L. 1989: 170.
- ocellatus* (Wood) 1974a: 37 (*Xyleborus*). Holotype ♀; Piedras Blancas, 10 km E Medellin, Antioquia, Colombia; Wood Collection. Distribution: South America (Colombia). Hosts: *Clusia* sp. References: **(tx)** Wood, S. L. 1974a: 37.
- opacithorax* (Schedl) 1937b: 402 (*Xyleborus*). Holotype ♀; Urwald Beni (Ostafrika); Schedl Collection in NHMW, Wien. Distribution: Africa (South Africa/ Uganda/ Zaire). Hosts: *Celtis mildbraedii*, *Hannoa klaineana*. References: **(hb)** Schedl 1962j: 184. **(ds)** Schedl 1962j: 184, 1965a: 21, 1967e: 218. **(tx)** Schedl 1937b: 402–403, 1962j: 184–185, 1965g: 21, 1979c: 179.
- opimus* (Wood) 1974a: 37 (*Xyleborus*). Holotype ♀; Sebring, Florida [USA]; Wood Collection. Distribution: North America (Florida in USA). Notes: (3) This is probably an introduction from another continent. References: **(ds)** Drooz 1985: 374; Wood, S. L. 1982b: 807. **(tx)** Wood, S. L. 1974a: 37, 1982b: 807.
- optatus* (Schedl) 1973e: 92 (*Xyleborus*). Holotype ♀; Sydney, N. S. Wales, Australia; Schedl Collection in NHMW, Wien. Distribution: Australia (New South Wales). References: **(tx)** Schedl 1973e: 92, 1979c: 175.
- ovatus* (Eggers) 1932d: 298 (*Xyleborus*). Holotype ♀; Congostaat (Ganda-Buku); Eggers Collection, in NHMW, Wien. Figures: Schedl 1962j: 167. Distribution: Africa (Cameroon/ Ivory Coast/ Nigeria/ Zaire). Hosts: *Canarium* sp., *Dialium corbisieri*, *Drypetes gossweileri*, *Pterocarpus soyauxii*, *Ricinodendron heudelotii*, *Strombosia grandiflora*, *Triumfetta* sp. Notes: *X. tenebrosus* is a synonym (DEB). References: **(hb)** Schedl 1962j: 166. **(ds)** Schedl 1962j: 166, 1964e: 69, 1967e: 218. **(tx)** Eggers 1932d: 298–299; Schedl 1937b: 402, 1952j: 3, 1957d: 101, 1962j: 166–167, 1979c: 181.
- paucus* Wood 1986c: 269. Holotype ♀; Isla del Coco, Costa Rica; Wood Collection. Distribution: North America (Isla del Coco in Costa Rica). References: **(tx)** Wood, S. L. 1986c: 269.
- permarginatus* (Schedl) 1933d: 200 (*Xyleborus*). Holotype ♀; Mt. Maquiling, Laguna Prov., Luzon; Schedl Collection in NHMW, Wien. Distribution: Asia (Ryukyu Islands), Philippine Islands (Luzon). References: **(ds)** Nobuchi 1979a: 407; Schedl 1966b: 65. **(tx)** Nobuchi 1983: 303; Schedl 1933d: 200–201, 1979c: 189.
- pertortuosus* (Schedl) 1942a: 186 (*Xyleborus*). Holotype ♀; Philippinen, Luzon, Mt. Makiling; Schedl Collection in NHMW, Wien. Distribution: Philippine Islands (Luzon).

References: **(tx)** Nobuchi 1983: 303; Schedl 1942a: 186, 1966b: 65, 1979c: 191.

pithecolobius (Schedl) 1937c: 13 (*Xyleborus*). Lectotype ♀; Gold Coast: Eastern Province, Actinota; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 195. Distribution: Africa (Ghana/ Sudan/ Zaire/ Zimbabwe).

Hosts: *Pithecolobium saman*.

References: **(ds)** Schedl 1962j: 185, 1967e: 218, 1968b: 145. **(tx)** Browne 1970: 569; Schedl 1937c: 13–14, 1954e: 47, 1962j: 185, 1979c: 195.

pseudocitri (Schedl) 1959a: 494 (*Xyleborus*). Syn-types ♀; Ceylon: Sabargamuva, Millawitiya Estate; Schedl Collection in NHMW, Wien. Distribution: Asia (Sri Lanka).

Notes: (1) Schedl 1979c: 201 (citation of holotype invalid).

References: **(ds)** Schedl 1959a: 495, 1971a: 281. **(tx)** Schedl 1959a: 494–495, 1979c: 201.

pseudocolossus (Schedl) 1942d: 28 (*Xyleborus*). Holotype ♀; Ost-Java, Samberbajem, Res. Kediri; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Java).

References: **(tx)** Schedl 1942d: 28, 1979c: 201.

raucus (Schedl) 1950c: 209 (*Xyleborus*). Holotype ♀; Mauritius, Les Mares; Schedl Collection in NHMW, Wien.

Distribution: Africa (Mauritius Island), Madagascar. Hosts: *Coffea* sp.

References: **(ds)** Schedl 1969d: 11, 1977b: 136. **(tx)** Schedl 1950c: 209, 1977b: 137, 1979c: 210.

restrictus (Schedl) 1939f: 46 (*Xyleborus*). Lectotype ♀; Mt. Gede, Tapos, G. Slamet, Java, Batoerraden; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 210.

Distribution: Asia (Malaya), Indonesia (Java).

Hosts: *Shorea* sp.

Notes: (3) This is a possible synonym of *consimilis*.

References: **(hb)** Kalshoven 1959c: 138. **(ds)** Kalshoven 1959c: 138; Schedl 1971c: 365. **(tx)** Schedl 1939f: 46–48, 1979c: 210.

rhodesianus (Eggers) 1936c: 40 (*Xyleborus*). Holotype ♀; S. Rhodesia: Salisbury; BMNH, London. Figures: Nunberg 1963b: pl. 23, figs. 6–7, pl. 24, figs. 1–2.

Distribution: Africa (South Africa/ Tanzania/ Zaire/ Zambia/ Zimbabwe).

References: **(ds)** Beaver & Loytyniemi 1989; Schedl 1962j: 169, 1965e: 355. **(tx)** Beaver & Loytyniemi 1989; Eggers 1936c: 40; Nunberg 1963b: 48, pl. 23–24; Powell, W. 1980: 29; Schedl 1962j: 169, 1979c: 211.

rubricollis (Eichhoff) 1875: 202 (*Xyleborus*). Holotype ♀; Japan; IRSNB, Brussels.

Figures: Bright 1968b: 1299, Nakane et al. 1963: 384, Nobuchi 1966d: pl. 4.

Distribution: Asia (Bonin Islands/ Anhui, Fujian,

Hebei, Hunan, Shangdong, Shanxi, Sichuan, Xizang [Tibet], Zhejiang in China/ Assam, "South India" in India/ Japan/ Korea/ Malaya/ Taiwan/ Thailand/ Vietnam), Australia (introduced), North America (introduced into: Alabama, Connecticut, Florida, Maryland, Pennsylvania, Tennessee, Virginia in USA).

Hosts: *Acacia* sp., *Carya* sp., *Castania* sp., *Cornus* sp., *Ilex* sp., *Ilex* sp., *Juglans nigra*, *Morus alba*, *Prunus* sp., *Quercus* sp., *Rhus* sp., *Terminalia myriocarpa*.

References: **(ay)** Kazid 1967; Murayama 1933a: 2; Takagi 1967. **(bv)** Choo, Woo, & Park 1988; Kovach 1986a. **(cn)** Anonymous 1974e, 1980g; Kovach 1986a; Kovach & Gorsuch 1986; Murayama 1954a: 22; Shiraki 1952; Williams, L. H. & La Fage 1979: 426; Wood, S. L. 1977a: 73. **(cc)** Banno, Nikita, & Kodama 1983: 445; Takagi 1967: 168–170; Yamashita 1966; Yoon et al. 1982. **(hb)** Beaver & Browne 1975: 612; Browne 1961c: 109; Kovach 1986a; Takahashi 1989: 403; Wood, S. L. 1982b: 806; Yamashita 1966; Yoon et al. 1982. **(ds)** Anonymous 1974e, 1980g; Baker, W. L. 1972: 271; Beaver & Browne 1978: 612; Bright 1968b: 1302; Browne 1980c: 482; Cho 1957; Choo 1983: 109; Choo & Woo 1985: 166; Choo, Woo, & Nobuchi 1983: 172, 1985a: 134; Choo, Woo, & Park 1988; Deyrup 1981b: 7; Drooz 1985: 374; Hagedorn 1910d: 110; Kirk 1970; Kleine 1913b: 162, 1914b: 261, 1934a: 175; Ko 1969: 286; Murayama 1933b: 4, 1936a: 135, 1936b: 116, 1937b: 374, 1949c: 103, 1950b: 1297, 1951a: 6, 1952a: 23, 1952b: 169, 1953a: 21, 1953c: 160, 1954a: 22, 1954b: 181, 1955: 103; Nakane et al. 1963: 384; Nobuchi 1966d: 29, 1967: 22; Nobuchi & Ono 1973: 182; Nohira & Ogawa 1986; Shiraki 1952; Wood, S. L. 1977a: 73, 1982b: 806. **(tx)** Blandford 1894d; Bright 1968b: 1299, 1302; Choo 1983: 109; Eggers 1931a: 19–20; Eichhoff 1875: 202, 1878b: 330; Hagedorn 1910a: 156; Murayama 1933a: 2, 31, 1933b: 16–18, 1934a: 4, 1934c: 300, 1936a: 135, 1937b: 374, 1950b: 1297, 1952b: 169, 1953a: 21, 1954b: 181, 1955: 103; Nakane et al. 1963: 384; Niisima 1909: 155, 1910a: 12; Nobuchi 1966d: 29, pl. 4; Schedl 1934f: 1646; Wood, S. L. 1982b: 806.

taboensis Schedl 1952c: 65 (*Xyleborus*). Holotype ♀; Formosa, Tacho (Rato); Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 170. References: **(ds)** Nobuchi 1967: 23. **(tx)** Schedl 1952c: 65, 1979c: 249; Wood, S. L. 1989: 170.

strolmeyeri Schedl 1975e: 457 (*Xyleborus*). Holotype ♀; S'ghai (South India); Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 170.

References: **(tx)** Schedl 1975e: 457, 1979c: 238; Wood, S. L. 1989: 170.

- rugicollis* (Blandford)** 1898b: 207 (*Xyleborus*). Holotype ♀; Cerro Zumil, Guatemala, 4000–5000 ft; BMNH, London.
Distribution: North America (Guatemala).
References: (**ds**) Atkinson & Equihua 1985b: 237; Blackwelder 1947: 780; Hagedorn 1910d: 110; Kleine 1914b: 371; Wood, S. L. 1982b: 809. (**tx**) Blandford 1898b: 207; Hagedorn 1910a: 156; Wood, S. L. 1982b: 809.
- rusticus* (Wood)** 1974a: 36 (*Xyleborus*). Holotype ♀; 10 km NE Teziutlan, Puebla, Mexico; Wood Collection.
Distribution: North America (Chiapas, Puebla in Mexico).
Hosts: Logs & *Pinus* sp.
References: (**hb**) Atkinson et al. 1986: 35; Wood, S. L. 1982b: 806. (**ds**) Atkinson & Equihua 1988: 85; Atkinson et al. 1986: 35; Wood, S. L. 1982b: 806. (**tx**) Wood, S. L. 1974a: 36, 1982b: 806.
- sakoe* (Schedl)** 1961e: 144 (*Xyleborus*). Holotype ♀; Madagascar, Mt. d'Ambre, Joffreville; IRSM, Madagascar.
Distribution: Madagascar.
References: (**ds**) Schedl 1977b: 137. (**tx**) Schedl 1961e: 144, 1977b: 137, 1979c: 218.
- sandragotoensis* (Schedl)** 1961e: 148 (*Xyleborus*). Holotype ♀; Madagascar, Sandragato; IRSM, Madagascar.
Distribution: Madagascar.
References: (**tx**) Schedl 1961e: 148, 1977b: 165, 1979c: 219.
- saravakensis* (Eggers)** 1923a: 176 (*Xyleborus*). Holotype ♀; Saravak auf Borneo; MCG, Genova.
Distribution: Indonesia (Borneo).
References: (**hb**) Brovne 1961c: 105. (**ds**) Brovne 1961c: 105. (**tx**) Eggers 1923a: 176; Numborg 1978: 116; Schedl 1939e: 330, 1942a: 187, 1953c: 290.
- scalaris* (Schedl)** 1935d: 95 (*Xyleborus*). Holotype ♀; Costa Rica, Turrialba; Schedl Collection in NHMW, Wien.
Distribution: North America (Costa Rica).
Hosts: Log
References: (**hb**) Wood, S. L. 1982b: 805. (**ds**) Blackwelder 1947: 780; Wood, S. L. 1982b: 805. (**tx**) Schedl 1935d: 95; Wood, S. L. 1982b: 805–806.
- semicarinatus* (Schedl)** 1942c: 191 (*Xyleborus*). Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (**tx**) Schedl 1942c: 191, 1979c: 224.
- sexdentatus* (Eggers)** 1940d: 148 (*Xyleborus*). Holotype ♀; Java (Batoerraden, G. Slamet); USNM, Washington.
Distribution: Indonesia (Java).
References: (**hb**) Kalshoven 1959c: 157. (**ds**) Kalshoven 1959c: 157. (**tx**) Anderson, W. H. & Anderson 1971: 29; Eggers 1940d: 148–149; Schedl 1951i: 44, 1979c: 227.
- signiceps* (Schedl)** 1962j: 185 (*Xyleborus*). Holotype ♀; Belgisch-Kongo: Mulungu; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
Hosts: *Moerua* sp.
References: (**tx**) Schedl 1962j: 185, 1979c: 228.
- signifer* (Schedl)** 1968b: 146 (*Xyleborus*). Holotype ♀; Sudan, Equatoria, Yambio; ZMUH, Helsinki.
Distribution: Africa (Sudan).
References: (**ds**) Schedl 1971e: 3. (**tx**) Schedl 1968b: 146, 1979c: 228.
- subnepotulus* (Eggers)** 1930d: 178 (*Xyleborus*). Holotype ♀; Burma (Pyonchaung Reserve, N. Toungoo); FRI, Dehra Dun.
Distribution: Asia (Burma).
Hosts: *Albizzia lebbeki*.
References: (**ds**) Beeson 1930: 85, 261, 1961: 309; Nobuchi 1967: 23. (**tx**) Beeson 1930: 85, 261; Eggers 1930d: 178, 361, 1939c: 114, 119, 1940a: 138; Schedl 1939f: 45–47.
- sulcatus* (Eggers)** 1930d: 180 (*Xyleborus*). Holotype ♀; Assam (Upper Dihing Reserve, Lakhimpur); FRI, Dehra Dun.
Distribution: Asia (Fujian in China/ Assam in India).
Hosts: *Artocarpus lakoocha*.
References: (**ds**) Beeson 1930: 86, 262, 1961: 309; Kleine 1934a: 175; Schedl 1960f: 173. (**tx**) Beeson 1930: 86, 262; Eggers 1930d: 180, 1939b: 13, 1941b: 224; Schedl 1951i: 59, 1960e: 173, 1979c: 246.
- tachygraphus* (Zimmermann)** 1868: 144 (*Xyleborus*). Holotype ♀; North Carolina [USA]; MCZ, Cambridge.
Distribution: North America (Alabama, District of Columbia, Georgia, Illinois, Maryland, Mississippi, New Jersey, North Carolina, Pennsylvania, South Carolina, Virginia, West Virginia in USA).
Hosts: *Acer* sp., *Betula* sp., *Carya* sp., *Castanea dentata*, *Cercis* sp., *Fagus* spp., *Juglans* sp., *Liriodendron* sp., *Rhus* sp.
References: (**bv**) Atkinson, Foltz, & Connor 1988; Kovach 1986a; Turnbow & Franklin 1980. (**en**) Chittenden 1879: 79–80, 1897: 79; Doane et al. 1936; Howard 1897: 79; Hubbard 1897b: 22; Kovach 1986a; Kovach & Gorsuch 1985. (**ee**) Steinhilber 1946: 404. (**hb**) Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 269; Beal & Massey 1945: 55–56; Chamberlin 1939: 441; Doane et al. 1936; Hubbard 1897b: 22; Kovach 1986a; Schwarz 1891b: 62–64. (**ds**) Anonymous 1926c: 520; Atkinson et al. 1991: 160; Baker, W. L. 1972: 269; Beal & Massey 1945: 55–56; Blatchley & Leng 1916: 614; Bright 1968b: 1303; Chamberlin 1939: 441; Chapin & Oliver 1986; Deyrup 1981b: 7; Deyrup & Atkinson 1987b: 68; Drooz 1985: 374; Genninger & Harold 1872: 2686; Hagedorn 1910d: 112; Henshaw 1885: 148; Kirk 1969, 1970; Kleine 1913b: 168, 1934a: 177; Leng 1920: 341;

Leonard 1928: 520; Schwarz 1890a: 41; Swaine 1909: 156; Tumbow & Franklin 1980; Wood, S. L. 1982b: 80S. **(tx)** Beal & Massey 1945: 49; Blatchley & Leng 1916: 614; Bright 1965b: 1303; Chamberlin 1939: 441; Eichhoff 1878b: 323; Hagedorn 1910a: 157; Hopkins 1915b: 56–57, 1915c: 173; Hubbard 1897b: 22; LeConte 1865: 159, 1876: 358, 360; Swaine 1909: 156, 1910b: 161–162, 165; Wood, S. L. 1982b: 80S; Zimmermann 1868: 144.

tenebrosus (Schedl) 1937b: 402 (*Xyleborus*). Syn-types ♀; Africa, Congo?; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1962j: 166. Distribution: Africa (Zaire?).

Notes: (1) Schedl 1979c: 251 (citation of holotype invalid). (3) This is a synonym of *ovatus* Eggers (DEB).

References: **(tx)** Schedl 1937b: 402, 1952j: 3, 1957d: 101, 1966j: 166, 1979c: 251.

tomicoides (Eggers) 1923a: 205 (*Xyleborus*). Holotype ♀; Suban Ajan (Sumatra); RNH, Leiden. Distribution: Indonesia (Sumatra).

References: **(tx)** Eggers 1923a: 205; Schedl 1950g: 895.

tortuosus (Schedl) 1942a: 186 (*Xyleborus*). Lectotype ♀; Malaya, Perak, Trolak F. R., und Larut Hills; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 254.

Distribution: Asia (Malaya).

References: **(hb)** Browne 1961c: 106. **(tx)** Schedl 1942a: 186, 1979c: 254.

triton (Schaufuss) 1905: 9 (*Xyleborus*). Holotype ♀; Madagascar; Hamburg Museum, lost.

Distribution: Madagascar.

References: **(ds)** Hagedorn 1910d: 112; Kleine 1913b: 163, 1914b: 326; Schedl 1970d: 234, 1977b: 137. **(tx)** Anderson, W. H. & Anderson 1971: 34; Eggers 1922b: 171; Hagedorn 1910a: 157, 1913b: 257; Schaufuss 1905: 9; Schedl 1953d: 69, 1970d: 234, 1977b: 137, 1979c: 256.

trolaki (Schedl) 1939e: 350 (*Xyleborus*). Lectotype ♀; Malaya, Perak, Trolak For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 256.

Distribution: Asia (Malaya).

References: **(hb)** Browne 1961c: 107. **(ds)** Browne 1962c: 202. **(tx)** Schedl 1939e: 350–351, 1979c: 256.

tropicus (Hagedorn) 1910b: 12 (*Xyleborus*). Syn-types ♀; Kamerun; MNB, Berlin.

Distribution: Africa (Angola/ Cameroon/ Congo/ Equatorial Guinea/ Gabon/ Ghana/ Ivory Coast/ Rwanda/ South Africa/ Zaire/ Zambia).

Hosts: *Albizzia* sp., *Bussea occidentalis*, *Canarium* sp., *Carapa* sp., *Celtis mildbraedii*, *Combretodendron* sp., *Cynometra* sp., *Eucalyptus* spp., *Ficus serotii*, *Garcinia* sp., *Gossweilerodendron* sp., *Gossypium hirsutum*, *Macrolobium* sp., *Myrianthus* sp., *Pentaclethra* sp., *Strombosia* sp.

sp., *Sterculia* sp., *Synepahum* spp., *Terminalia* sp., *Veronia* sp.

References: **(bv)** Schedl 1960j: 53. **(cn)** Ghesquiere 1933a: 27–35, 1933b: 777–785. **(hb)** Loytyniemi, Beaver, & Loytyniemi 1984; Schedl 1962j: 186; Thompson, F. G. 1963a: 245. **(ds)** Beaver & Loytyniemi 1985a: 68; Ferreira 1965: 1126; Ghesquiere 1933a; Hagedorn 1910d: 112; Kleine 1913b: 163, 1914b: 312, 1934a: 176; Mayne & Donis 1962: 323; Roberts 1969: 134; Schedl 1959p: 22, 1960j: 40, 1961f: 84, 1962b: 61, 1962j: 186, 1962k: 1105, 1964e: 69, 1964j: 42, 1965c: 356, 1966c: 229, 1971g: 194, 1972e: 254; Thompson, F. G. 1963a: 245; Wichmann 1954: 522. **(tx)** Beaver & Loytyniemi 1985a: 68; Eggers 1920: 125, 1927a: 198; Hagedorn 1910a: 157, 1910b: 12; Schedl 1937c: 13, 1952j: 2, 1957d: 17, 1962j: 186, 1962k: 1105.

trux (Schedl) 1937b: 400 (*Xyleborus*). Lectotype ♀; Madagascar, Sikora; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 257.

Distribution: Madagascar.

References: **(ds)** Schedl 1977b: 139. **(tx)** Schedl 1937b: 400, 1951b: 376, 1977b: 139, 1979c: 257.

turgidus (Schedl) 1962j: 188 (*Xyleborus*). Holotype ♀; Deutsch-Ostafrika; Tanga; Schedl Collection in NHMW, Wien.

Distribution: Africa (Tanzania).

References: **(tx)** Schedl 1962j: 188, 1979c: 259.

upoluensis (Schedl) 1951k: 152 (*Xyleborus*). Lectotype ♀; Upolu, Afiamalu; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 261. Distribution: Samoan Islands.

Notes: This is apparently a synonym of *wilderi* (DEB).

References: **(tx)** Beaver 1976b: 542; Schedl 1951k: 138, 152, 1979c: 261.

wilderi (Beeson) 1929: 235 (*Xyleborus*). Holotype ♀; Tutuila; Fagasa; BMNH, London.

Distribution: Samoan Islands.

Hosts: *Albizzia falcata*, *Elaeocarpus* sp., *Leucaena* sp.

References: **(hb)** Beaver 1976b: 542. **(ds)** Beaver 1976b: 542; Beeson 1938b: 294. **(tx)** Beeson 1929: 235–236; Schedl 1951k: 137.

Genus *Amasa* Lea

AMASA LEA 1894: 322. Type-species: *Amasa thoracica* Lea = *Tomicus truncatus* Erichson, monobasic.

Pseudoxyleborus Eggers 1930d: 206. Type-species: *Pseudoxyleborus beesonii* Eggers, monobasic. Synonymy: Wood 1984b: 223.

References: **(tx)** Browne 1961c: 172; Eggers 1930d: 206–207; Murayama 1950: 49; Schedl 1936h: 60–62; Wood, S. L. 1984b: 223.

Anaxyleborus Wood 1980b: 90. Type-species: *Tomicus truncatus* Erichson, original designation. Synonymy: Wood 1983a: 647.

References: **(tx)** Wood, S. L. 1980b: 90, 1983a: 647.

- References: **(hb)** Wood, S. L. 1986a: 83. **(ds)** Wood, S. L. 1986a: 83. **(tx)** Lea 1894: 322; Wood, S. L. 1984b: 223, 1986a: 83.
- amputatus (Blandford)** 1894c: 575 (*Xyleborus*). Holotype ♀; Japan: Higo; BMNH, London. Figures: Nakane et al. 1963: pl. 192, Nunberg 1978: 106, Yin, Huang, & Li 1984: 178. Distribution: Asia (Japan/ Taiwan). Hosts: *Acer* sp., *Cinnamomum mairei*, *C. sp.*, *Machilus* sp., *Pelargonium hortorum*, *Ziziphus jujuba*. References: **(ds)** Choo & Woo 1989; Hagedorn 1910d: 98; Kleine 1913b: 160, 1914b: 261; Murayama 1952a: 18, 1953c: 155, 1954b: 174; Nakane et al. 1963: 383; Nobuchi 1967: 21; Sampson 1921: 29; Yin, Huang, & Li 1984: 178. **(tx)** Blandford 1894c: 575; Hagedorn 1910a: 152; Murayama 1934c: 299, 1934d: 505–512, 1952a: 18, 1954b: 174; Nakane et al. 1963: 383, pl. 192; Nobuchi 1985c: 23; Nunberg 1978: 105–106; Sampson 1921: 29; Schedl 1934f: 1645.
- anomalus (Schedl)** 1955b: 298 (*Xyleborus*). Holotype ♀; Deutsch-Neu-Guinea; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: **(tx)** Schedl 1955b: 281, 298, 1979c: 21.
- aspersus (Sampson)** 1921: 31 (*Xyleborus*). Holotype ♀; Penang; BMNH, London. Distribution: Asia (Malaya/ Thailand), Indonesia (Borneo). Hosts: *Eugenia* sp. Notes: (3) Browne 1948: 904 (described male). References: **(cn)** Browne 1952. **(ec)** Browne 1958b. **(hb)** Beaver & Browne 1978: 603; Browne 1958b, 1961c: 172. **(ds)** Beaver & Browne 1975: 297, 1978: 603; Browne 1961c: 172; Sampson 1921: 31; Schedl 1936d: 2. **(tx)** Browne 1948: 904; Sampson 1921: 31; Schedl 1936d: 2, 1936h: 62.
- banksiae (Schedl)** 1964d: 213 (*Xyleborus*). Holotype ♀; Dwellingup, W. A. [West Australia]; BMNH, London. Distribution: Australia (West Australia). Hosts: *Banksia grandis*. References: **(ds)** Schedl 1964d: 213. **(tx)** Schedl 1964d: 213, 1979c: 33.
- batoerradensis (Schedl)** 1939f: 39 (*Pseudoxyleborus*). Lectotype ♀; Batoerraden, G. Slamet, Java; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 36. Distribution: Asia (Malaya), Indonesia (Java). Hosts: *Eugenia aromatica*, *Myristica fragrans*. Notes: (1) A Schedl note in his collection lists this as a synonym of *laticaudatus*. References: **(ds)** Beaver & Browne 1978: 603; Browne 1961c: 173; Nunberg 1961b: 610. **(tx)** Schedl 1939f: 39–40, 1979c: 36.
- beesoni (Eggers)** 1930d: 207 (*Pseudoxyleborus*). Holotype ♀; Burma (Ataran Division, Moulmein); FRI, Dehra Dun. Distribution: Asia (Burma/ Malaya), Indonesia (Borneo). Hosts: *Nephelium longana*, *Xerospermum intermedium*. References: **(ec)** Browne 1958b: 169. **(hb)** Browne 1958b: 169, 1961c: 173. **(ds)** Beeson 1961: 295; Browne 1961c: 173. **(tx)** Eggers 1930d: 207; Schedl 1936h: 60, 1939f: 39, 1940d: 134, 1942a: 171, 1979c: 36.
- bicostatus (Sampson)** 1921: 28 (*Xyleborus*). Holotype ♀; Mt. Matang, Sarawak, Borneo; BMNH, London. Distribution: Indonesia (Borneo). References: **(ds)** Sampson 1921: 28. **(tx)** Sampson 1921: 28.
- calamoides (Murayama)** 1934c: 291 (*Xyleborus*). Syntypes ♀; Nagoa Forest, Miyazaki pref., Kiushu; Murayama Collection in USNM, Washington. Distribution: Asia (Japan). Hosts: *Quercus gilva*. References: **(ds)** Murayama 1954b: 202; Nobuchi 1985c: 24. **(tx)** Murayama 1934c: 291, 1954b: 202.
- circumcisulus (Schedl)** 1954a: 140, 151 (*Xyleborus*). Lectotype ♀; Batoerraden, G. Slamet, Java; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 58. Distribution: Indonesia (Java). Hosts: *Eugenia lineata*. References: **(tx)** Schedl 1954a: 140, 151, 1979c: 58.
- concitatus (Schedl)** 1969a: 214 (*Xyleborus*). Holotype ♀; Formosa, Keelung to Tokyo (Japan), imported; PPST, Tokyo. Figures: Nobuchi 1978a: pl. 2. Distribution: Asia (Taiwan). References: **(ds)** Nobuchi 1978a: 23. **(tx)** Nobuchi 1978a: pl. 2; Schedl 1969a: 214, 1979c: 61.
- consularis (Schedl)** 1955b: 299 (*Xyleborus*). Holotype ♀; Samoa; Schedl Collection in NHMW, Wien. Figures: Schedl 1955b: 299 (female). Distribution: Samoan Islands. References: **(tx)** Schedl 1955b: 286, 299, 1979c: 64.
- cylindriformis (Schedl)** 1942c: 190 (*Xyleborus*). Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien. Distribution: Fiji Islands, New Guinea. Hosts: Myrtaceae. References: **(tx)** Schedl 1942c: 190, 1979c: 74.
- circulicauda** Browne 1974a: 68 (*Xyleborus*). Holotype ♀; Fiji: Viti Levu, Galoa; BMNH, London. Synonymy: Schedl 1980d: 120. References: **(ec)** Roberts 1977a: 253. **(hb)** Roberts 1977a: 253. **(ds)** Browne 1974a: 65,

68. **(tx)** Browne 1974a: 65, 68; Schedl 1980d: 120.

dasyurus (Browne) 1950a: 645 (*Xyleborus*). Holotype ♀; Malaya: Kelantan, Pulau Chondong; BMNH, London.

Distribution: Asia (Malaya).

References: **(hb)** Browne 1961c: 160. **(ds)** Browne 1950a: 645, 1961c: 160.

doliaris (Schedl) 1959a: 511 (*Xyleborus*). Holotype ♀; Ceylon: Denawake Group; Schedl Collection in NHMW, Wien.

Distribution: Asia (Sri Lanka).

References: **(ds)** Schedl 1959a: 511. **(tx)** Schedl 1959a: 511, 1979c: 83.

eugeniae (Eggers) 1930d: 183 (*Xyleborus*). Holotype ♀; India: Uttar Pradesh, Lachiwala, Dehra Dun; FRI, Dehra Dun.

Distribution: Asia (Bengal, Uttar Pradesh in India/ Sri Lanka), Indonesia (Borneo).

Hosts: *Eugenia jambolana*.

References: **(ay)** Gardner 1934b. **(ds)** Beeson 1930; Kleine 1934a: 173; Schedl 1959a: 511, 1971a: 281. **(tx)** Beeson 1930: 57, 233; Eggers 1930d: 183–184; Gardner 1934b; Schedl 1959a: 511, 1979c: 92.

exactus (Schedl) 1964i: 246 (*Xyleborus*). Holotype ♀; Australia: Queensland, Cairns; Schedl Collection in NHMW, Wien.

Distribution: Australia (Queensland).

References: **(ds)** Kendrick & Molnar 1965: 39–43. **(tx)** Schedl 1964i: 246, 1979c: 93.

foveicollis (Browne) 1950b: 646 (*Xyleborus*). Holotype ♀; Malaya: Selangor, Kepong; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Palaquium stellatum*.

References: **(ds)** Browne 1961c: 160. **(hb)** Browne 1961c: 160. **(tx)** Browne 1950b: 646.

fulgens (Schedl) 1975f: 365 (*Xyleborus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe District, New Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: **(tx)** Schedl 1975f: 365, 1979c: 101.

fuscipilosus (Eggers) 1940d: 137 (*Xyleborus*). Holotype ♀; Java (Preanger, Tangkoeban Prahoë); Drescher Collection, cotype in Eggers Collection, in NHMW, Wien.

Distribution: Indonesia (Java).

Notes: (1) Schedl 1979c: 102 (citation of lectotype invalid).

References: **(tx)** Eggers 1940d: 137–138; Schedl 1979c: 102.

geminatus (Hagedorn) 1904d: 126 (*Xyleborus*). Holotype ♀; Dardjiling [India]; Hamburg Museum, lost.

Distribution: Asia (Bengal in India).

References: **(ds)** Hagedorn 1910d: 105; Kleine

1913b: 161, 1914b: 277. **(tx)** Beeson 1930: 40; Hagedorn 1904d: 126, 1910a: 154.

glaucus (Sampson) 1921: 30 (*Xyleborus*). Holotype ♀; Penang; BMNH, London.

Distribution: Asia (Malaya).

References: **(ds)** Beaver & Browne 1978: 609; Browne 1961c: 173; Sampson 1921: 30. **(tx)** Eggers 1930d: 206; Sampson 1921: 30.

latetruncatus (Schedl) 1942a: 190 (*Xyleborus*). Lectotype ♀; Malaya, Pahang, Cameron's Highland, 5000 Fuss; Schedl Collection, designated by Schedl 1979c: 136.

Distribution: Asia (Malaya).

References: **(tx)** Schedl 1942a: 190, 1979c: 136.

laticaudatus (Eggers) 1923a: 168 (*Xyleborus*). Holotype ♀; M. Singalang auf Sumatra; MCG, Genova.

Distribution: Indonesia (Sumatra).

Notes: (1) A Schedl note in his collection lists *batoerradensis* Schedl as a synonym of this species.

References: **(tx)** Eggers 1923a: 168–169.

mixtus (Schedl) 1979g: 108 (*Xyleborus*). Holotype ♀; Papua [New Guinea], Bulolo, Morobe District, Upper Manki L. A.; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: **(tx)** Schedl 1979g: 108.

neotruncatus (Schedl) 1978c: 307 (*Xyleborus*). Holotype ♀; Brasilien, Nova Teutonia, 300–500 m, 27 degrees 11' Br., 52 degrees 23' L.; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

Notes: (3) Either this species is placed in the wrong genus or it represents an unreported introduction; it may be allied to *Xyleborus exaratus*.

References: **(tx)** Schedl 1978c: 307.

nitidior (Eggers) 1940d: 136 (*Xyleborus*). Holotype ♀; Java (Batoerraden, G. Slamet); Drescher Collection.

Distribution: Indonesia (Java).

References: **(tx)** Eggers 1940d: 136–137; Schedl 1951i: 44, 1954a: 143.

nobilis (Eggers) 1940d: 134 (*Pseudoxyleborus*). Lectotype ♀; Java (Batoerraden, G. Slamet); Eggers Collection, type and 1 cotype in NHMW, Wien, designated by Schedl 1979c: 171.

Distribution: Indonesia (Java).

Hosts: *Turpinia pomifera*.

References: **(hb)** Kalshoven 1959c: 163. **(ds)** Kalshoven 1959c: 163; Schedl 1961c: 71. **(tx)** Eggers 1940d: 134–135; Schedl 1936h: 62, 1937e: 550, 1951i: 44, 1954a: 142, 1961c: 71, 1964g: 242, 1969a: 214, 1979c: 171.

opalescens (Schedl) 1937e: 550 (*Xyleborus*). Lectotype ♀; Borneo: Sarawak, Mt. Dulit, 4000 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 180.

- Distribution: Asia (Malaya/ Vietnam), Indonesia (Borneo).
 Hosts: *Eugenia* sp., *Tristania* sp.
 References: (**ds**) Browne 1961c: 173; Schedl 1964g: 242, 1974c: 262. (**tx**) Schedl 1936h: 62, 1937c: 550, 1942a: 190, 1964g: 242, 1969a: 214, 1979c: 180.
- orbicaudatus** (Eggers) 1940d: 135 (*Xyleborus*). Holotype ♀; Java (Preanger, Tangkoeban Prahoe); Drescher Collection, 1 Eggers cotype, in NHMW, Wien.
 Distribution: Indonesia (Java).
 References: (**tx**) Eggers 1940d: 135–136; Schedl 1951i: 51, 1955b: 298, 1979c: 180.
- resecans** (Eggers) 1930d: 184 (*Xyleborus*). Holotype ♀; India: Assam (Central Range, Sibisagar); FRI, Dehra Dun.
 Distribution: Asia (Andaman Islands, Assam, Bengal in India).
 Hosts: *Dipterocarpus pilosus*, *D. turbinatus*.
 References: (**ds**) Beeson 1930. (**tx**) Beeson 1930: 77, 253; Eggers 1930d: 184.
- resectus** (Eggers) 1927b: 391 (*Xyleborus*). Syntypes 2 ♀; Benkoelen and Soekaranda (Sumatra); RNH, Leiden, and Stettin Museum, lost, automatic.
 Distribution: Asia (Sri Lanka), Indonesia (Java, Sumatra).
 Notes: (3) This could be a synonym of *Xylosandrus mancus*.
 References: (**hb**) Kalshoven 1959c: 159. (**ds**) Kalshoven 1959c: 159; Kleine 1934a: 175; Schedl 1971a: 218. (**tx**) Eggers 1927b: 391; Kalshoven 1959b: 94–95, 1960d.
- abruptus** Eggers 1923a: 169 (*Xyleborus*). Syntypes 2 ♀; Benkoelen and Soekaranda (Sumatra); RNH, Leiden, and Stettin Museum, lost, preoccupied by Sampson 1914.
 References: (**hb**) Miller, N. C. E. 1941. (**tx**) Eggers 1923a: 169, 1927b: 391.
- opacicauda** Eggers 1940d: 136 (*Xyleborus*). Holotype ♀; Java (Batoerraden, G. Slamet); Drescher Collection [Eggers cotype in NHMW, Wien]. Synonymy: Kalshoven 1959b: 94.
 References: (**ds**) Kalshoven 1959c: 159. (**tx**) Eggers 1940d: 136; Kalshoven 1959b: 94–95; Schedl 1951i: 43, 81, 1954a: 142, 1979c: 178.
- schlichii** (Stebbing) 1914: 592 (*Xyleborus*). Syntypes ♀; India: Kachugaon, Goalpara, Assam; FRI, Dehra Dun.
 Distribution: Asia (Assam, Bengal in India/ Malaya), Indonesia (Java).
 Hosts: *Castanea* sp., *Castanopsis sumatrana*, *C. sp.*, *Dryobalanops oblongifolia*, *Garcinia* sp., *Lithocarpus wallichianus*, *Pasania* sp., *Quercus* sp., *Shorea robusta*.
 References: (**cn**) Beeson 1916b: 1–5; Mathur & Singh 1961a: 40; Pierce, W. D. 1917: 193; Stebbing 1914: 592. (**ec**) Beeson 1923; Stebbing 1914: 592. (**hb**) Beaver & Browne 1978: 613; Beeson 1916a: 223, 1919: 1–23, 1923; Stebbing 1914: 592. (**ds**) Beaver & Browne 1978: 613; Beeson 1916a, 1923, 1930: 79, 255; Mathur & Singh 1961a: 40; Pierce, W. D. 1917: 193; Schedl 1975g: 294. (**tx**) Beeson 1930: 255; Eggers 1936e: 89; Schedl 1963h: 268, 1979c: 222; Stebbing 1914: 592.
- truncatus** Stebbing 1907: 40 (*Acanthotomicus*). Holotype ♀; Assam: Kachugaon Forests; FRI, Dehra Dun, preoccupied by Erichson 1842.
 References: (**ds**) Kleine 1913b: 132, 163, 1914b: 277. (**tx**) Numberg 1959a: 441; Stebbing 1907: 40.
- glaber** Eggers 1930d: 185 (*Xyleborus*). Holotype ♀; India: Assam (Haflong, Cachar); FRI, Dehra Dun. Synonymy: Wood 1989: 169.
 References: (**hb**) Kalshoven 1959c: 159. (**ds**) Kalshoven 1959a: 159; Schedl 1971c: 364. (**tx**) Eggers 1930d: 185; Schedl 1979c: 105; Wood, S. L. 1989: 169.
- uniseriatus** Eggers 1936e: 89 (*Xyleborus*). Holotype ♀; Java (Batoerraden, G. Slamet); ZMA, Amsterdam. Synonymy: Schedl 1963h: 268.
 References: (**hb**) Browne 1961c: 160; Kalshoven 1959c: 159. (**ds**) Browne 1961c: 160; Kalshoven 1959c: 159; Schedl 1961c: 71, 1971c: 365. (**tx**) Eggers 1936e: 89; Kalshoven 1959b: 94–95, 1960d; Schedl 1942d: 6, 1951i: 80, 1953c: 290, 1963h: 268, 1979c: 261.
- verax** Schedl 1939f: 43 (*Xyleborus*). Lectotype ♀; Java, Mt. Gede, Tapos; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 265. Synonymy: Kalshoven 1959b: 95.
 References: (**hb**) Kalshoven 1959c: 159. (**tx**) Kalshoven 1959b: 95; Schedl 1939f: 43, 1979c: 265.
- brevipennis** Schedl 1971c: 378 (*Xyleborus*). Holotype ♀; Sarawak: Semengoh; BMNH, London. Synonymy: Wood 1989: 169.
 References: (**tx**) Schedl 1971c: 378–379; Wood, S. L. 1989: 169.
- sirambeanus** (Eggers) 1923a: 169 (*Xyleborus*). Holotype ♀; Sumatra (Si Rambe); MCG, Genova. Distribution: Indonesia (Sumatra).
 References: (**tx**) Eggers 1923a: 158, 169–170; Schedl 1954c: 154.
- striatotruncatus** (Schedl) 1936j: 29 (*Xyleborus*). Lectotype ♀; Malay Peninsula, Perak: Chenderoh, Batu Talam; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 237.
 Distribution: Asia (Malaya), Indonesia (Borneo, Java).
 Hosts: *Madhuca* sp., *Nephelium* sp., *Scaphium* sp., *Shorea leprosula*.
 References: (**hb**) Browne 1961c: 160. (**ds**) Browne 1961a: 306, 1961c: 160, 1980a: 373; Olmo et al. 1988a: 94, 1989: 64; Schedl 1936j: 29, 1971c: 365. (**tx**) Schedl 1936j: 29–30, 1936h: 61, 1951i: 44, 1954a: 143, 1955b: 309, 1979c: 237.

tereticollis (Schedl) 1951i: 82 (*Xyleborus*). Holotype ♀; Sumatra; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Sumatra), New Guinea. References: (bv) Gray, B. 1974c. (hb) Gray, B. 1974c. (tx) Schedl 1951i: 82, 1954a: 151, 1979c: 252.

truncatiferus (Schedl) 1955b: 309 (*Xyleborus*). Holotype ♀; Fiji; Schedl Collection in NHMW, Wien.

Distribution: Fiji Islands.

References: (cn) Schedl 1979f: 103. (cc) Roberts 1977a: 265. (hb) Roberts 1977a: 265. (ds) Browne 1974a: 65; Roberts 1977a: 265. (tx) Schedl 1955b: 286, 298, 309, 1979c: 256.

truncatiformis (Eggers) 1923a: 170 (*Xyleborus*). Holotype ♀; Moroka in Sudost Neu Guinea (1300 m); MCG, Genova.

Distribution: New Guinea.

References: (tx) Eggers 1923a: 170, 1940d: 138; Schedl 1964d: 213.

truncatus (Erichson) 1842: 212 (*Tomicus*). Holotype ♀; Vandiemensland [Tasmania]; MNB, Berlin. Figures: Bain 1976: 183, Zondag 1977.

Distribution: Australia (New South Wales/Queensland/Tasmania).

Hosts: *Alphitonia petriei*, *Eucalyptus* spp., *Leptospermum ericoides*, *Metrosideros excelsa*.

Notes: (3) Schedl 1980: 187 (described male).

References: (cn) Anonymous 1963h, 1966g; Brimblecombe 1956; Browne 1968: 717; Froggatt 1927; Green 1912a: 39; Kershaw 1973; Milligan 1969b: 60; Moore 1959: 186; Newman 1924: 20–24; Zondag 1977. (cc) Anonymous 1966g; Milligan 1969b: 60; Moore 1959: 186–193, 1962a: 8. (hb) Brimblecombe 1956; Browne 1968: 717; Froggatt 1927; Milligan 1973a; Zondag 1977. (ds) Anonymous 1963h: 47, 1963h; Browne 1968: 717; Gemminger & Harold 1872: 2692; Green 1912a: 39; Ibero 1959: 162; Kleine 1913b: 163, 1914b: 299, 1934a: 176; Kuschel 1972; Moore 1959: 186–193, 1961: 92; Sampson 1921: 29; Schedl 1936g: 528, 1936j: 29, 1962i: 74. (tx) Bain 1976: 183; Beeson 1938: 294; Carne et al. 1980; Eggers 1923a: 170, 1940d: 135; Eichhoff 1878b: 317; Erichson 1842: 212; Green 1912a: 39; Hagedorn 1910a: 107, 152, Lea 1904: 106; Numberg 1959: 441; Sampson 1921: 29; Schedl 1936g: 528, 1936h: 60–61, 1942c: 163, 1951i: 82, 1957d: 35, 84, 1980b: 187; Stebbing 1907: 40; Zondag 1977. *thoracicus* Lea 1893: 322. Syntypes ♀; Tamworth and Armidale [New South Wales]; not located. Synonymy: Lea 1904: 106.

References: (tx) Lea 1893: 321–322, 1904: 106.

umbratulus (Schedl) 1975g: 221 (*Xyleborus*). Holotype ♀; New Guinea, Dagi River, West New Britain District; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1975g: 221, 1979c: 259.

versicolor (Sampson) 1921: 29 (*Xyleborus*). Holotype ♀; Penang; BMNH, London.

Figures: Wood 1960a: 56.

Distribution: Asia (Burma/ Bengal in India/ Malaya/ Sri Lanka), Indonesia (Borneo, Java), Micronesia (Caroline Islands, Ponape Island).

Hosts: *Alstonia angustifolia*, *Elaeocarpus ferrugineus*, *E. sp.*, *Pternandra coerulea*, *Randia anisophylla*, *Rhodamnia trinervia*, *Shorea curtisii*, *Schoutenia accrescens*.

References: (cn) Mathur & Singh 1961a: 33; Yimus & Hua 1980: 231. (hb) Beaver & Browne 1978: 614; Browne 1961c: 159–160; Kalshoven 1959c: 159. (ds) Beaver & Browne 1978: 614; Browne 1961a: 305, 1961c: 159; Kalshoven 1959c: 159; Mathur & Singh 1961a: 33; Sampson 1921: 29; Wood, S. L. 1960a: 51. (tx) Browne 1949b: 904; Eggers 1940d: 136; Kalshoven 1959b: 94; Murayama 1934c: 292; Sampson 1921: 29; Wood, S. L. 1960a: 51, 55–56.

Genus *Euwallacea* Hopkins

EUWALLACEA HOPKINS 1915b: 54. Type-species: *Xyleborus wallacei* Blandford, original designation.

References: (hb) Wood, S. L. 1986a: 83. (ds) Wood, S. L. 1986a: 83. (tx) Hopkins 1915b: 54; Schedl 1952k: 162; Wood, S. L. 1986a: 83.

andamanensis (Blandford) 1896b: 222 (*Xyleborus*). Holotype ♀; Andaman Islands; BMNH, London.

Figures: Numberg 1959a: pl. 28, figs. 4–5, Wood 1960a: 58.

Distribution: Asia (Bangladesh/ Burma/ Andaman Islands, Assam, Bengal, Madhya Pradesh, Maharashtra, Tamil Nadu in India/ Malaya/ Thailand/ Vietnam), Indonesia (Borneo, Buru, Mantawei, Sumatra), New Guinea.

Hosts: *Acacia catchu*, *Alstonia* sp., *Artocarpus* spp., *Bauhinia variegata*, *Butea frondosa*, *Cordia grandis*, *Dalbergia* sp., *Dichipsis elliptica*, *Dillenia pentagyna*, *Garuga pinnata*, *Gmelina arborea*, *Holigarna arnettiana*, *Ixora parviflora*, *Parabacna sagittata*, *Pterocarpus marsupium*, *Randia uliginosa*, *Salmalia insignis*, *Sapinum eugeniaefolium*, *Saraca* sp., *Shorea assamica*, *Strychnos nux-vanica*, *Symingtonia populnea*, *Symplocos theaeifolia*, *Tectona grandis*, *Terminalia tomentosa*, *Tetrameles nudiflora*, *Thespesia populnea*, *Turpina* sp., *Vateria indica*, *Vitex peduncularis*, *Wrightia tinctoria*, *Xanthophyllum* sp., *Xylia xylocarpa*, *Zanthoxylum rhetsa*.

References: (cn) Mathur & Singh 1960b: 96, 1961a: 10; Roonwal 1954: 85. (cc) Batra 1963b: 217. (hb) Beaver & Browne 1978: 602; Browne 1961c: 127; Kalshoven 1959c: 138. (ds) Beaver & Browne 1978: 603; Beeson 1930: 210, 225; Browne 1961c: 127–128, 1981b: 598; Eggers 1926a: 300; Hagedorn 1910d: 99; Kalshoven 1959c: 138; Kleine 1913b: 160, 1914b, 1934a: 172; Mathur &

Singh 1961a: 10, 1961b: 96; Roonwal 1954: 85; Schedl 1969c: 52, 1975e: 450. **(tx)** Beeson 1930: 210, 225; Blandford 1896b: 222; Eggers 1926a; Hagedorn 1910a: 152; Schedl 1939e: 330, 1942d: 5, 1951i: 70, 1954a: 140, 153, 1958k: 150, 1970i: 224, 1979c: 19.

noxius Sampson 1913: 445 (*Xyleborus*). Holotype ♀; S. Malabar, Madras, India; BMNH, London. Synonymy: Beeson 1930: 251.

Notes: (3) Schedl 1951: 70 (described male).

References: **(cn)** Ballard 1921; Chandra 1981; Mathur & Singh 1960a: 22, 1960b: 6, 1961a: 13, 1961b: 14; Stebbing 1914: 598. **(ec)** Chatterjee & Chatterjee 1951; Stebbing 1914: 598. **(hb)** Beaver & Browne 1975: 299; Chandra 1981; Chatterjee & Chatterjee 1951; Stebbing 1914: 598. **(ds)** Ballard 1921; Beaver & Browne 1975: 299; Beeson 1930: 212–213, 251, 1961: 308; Bhasin, Roonwal, & Singh 1958; Browne 1984b: 287; Chatterjee & Chatterjee 1951; Kalshoven 1959: 138; Kleine 1934a: 174; Mathur & Singh 1960a: 22, 1960b: 6, 1961a: 13, 1961b: 14; Nobuchi 1978a: 32; Schedl 1975a: 451, 1975e: 451. **(tx)** Beeson 1930: 212–213, 251; Eggers 1925: 159; Nobuchi 1978a: pl. 3; Numberg 1959a: 432, 438; Sampson 1913: 445; Schedl 1951i: 70, 1971f: 155; Stebbing 1914: 598; Wood, S. L. 1960a: 58.

siobanus Eggers 1923a: 186 (*Xyleborus*). Syn-types ♀; Insel Mentawai (Si Oban, Sipora); MCG, Genova, Eggers Collection (USNM, Washington or NHMW, Wien?), MNB, Berlin. Synonymy: Schedl 1958k: 150.

References: **(tx)** Eggers 1923a: 184–186; Numberg 1959a: 438; Schedl 1942d: 6, 1951i: 42, 1954a: 143, 154, 1958k: 150, 1979c: 231.

granulipennis Eggers 1930d: 194 (*Xyleborus*). Lectotype ♀; Nadghani (1500 ft.), Nilambur, Madras; USNM, Washington, designated by Anderson & Anderson 1971: 14. Synonymy: Wood 1989: 172.

References: **(cn)** Mathur & Singh 1960b: 73, 1961b: 70. **(ds)** Beeson 1930: 61, 237, 1961: 305; Kleine 1934a: 173; Mathur & Singh 1960b: 74, 1961b: 70; Schedl 1962b: 186, 1974c: 262. **(tx)** Anderson, W. H. & Anderson 1971: 14; Beeson 1930: 61, 237; Browne 1965: 248; Eggers 1930d: 194–195, 1940d: 138; Schedl 1939f: 48, 1979c: 112; Wood, S. L. 1989: 172.

burmanicus Beeson 1930: 210 (*Xyleborus*). Holotype ♀; Burma: Bilumyo Reserve, Katha; FRI, Dehra Dun. Synonymy: Schedl 1970i: 224.

References: **(cn)** Mathur & Singh 1960a: 23, 1960b: 6, 1961b: 14; Roonwal 1954: 36. **(ds)** Beeson 1930: 210; Kleine 1934a: 172; Mathur & Singh 1960a: 23, 1960b: 6, 1961b: 14; Roonwal 1954: 36. **(tx)** Beeson 1930: 210; Eggers 1935c: 309; Schedl 1970i: 224, 1979c: 49.

intextus Beeson 1930: 211 (*Xyleborus*). Holotype

♀; Bilumyo Reserve, Katha, Burma; FRI, Dehra Dun. Synonymy: Wood 1989: 172.

References: **(cn)** Mathur & Singh 1960b: 6, 1961a: 23, 1961b: 14; Roonwal 1954: 33. **(ds)** Bhasin, Roonwal, & Singh 1958; Kleine 1934a: 173; Mathur & Singh 1960b: 6, 1961a: 23, 1961b: 14; Roonwal 1954: 33. **(tx)** Beeson 1930: 210–212; Schedl 1951i: 68, 1971f: 155, 1979c: 128; Wood, S. L. 1989: 172.

senchalensis Beeson 1930: 212 (*Xyleborus*). Syn-types ♀; Bengal: Rangirum, Senchal Range, Darjeeling; FRI, Dehra Dun. Synonymy: Wood 1989: 172.

References: **(cn)** Mathur & Singh 1961a: 84. **(ds)** Beeson 1961: 309; Mathur & Singh 1961a: 84; Wood, S. L. 1960a: 51. **(tx)** Beeson 1930: 210–212, 257; Schedl 1979c: 224; Wood, S. L. 1960a: 51, 58.

aplanatus (Wichmann) 1914a: 412 (*Xyleborus*). Holotype ♀; ♀ Upper Rotung, ♂ Sadiya, Assam; not located.

Distribution: Asia (Assam in India).

Hosts: *Shorea robusta*.

References: **(bv)** Beeson 1916a: 223. **(cn)** Mathur & Singh 1961a: 45. **(hb)** Beeson 1916a: 223. **(ds)** Mathur & Singh 1961a: 45. **(tx)** Wichmann 1914a: 412.

artelaevs (Schedl) 1942a: 196 (*Xyleborus*). Holotype ♀; Malaya, Perak, Trolak F. R.; BMNH, London.

Distribution: Asia (Malaya), Indonesia (Borneo).

Hosts: Annonaceae, *Partocarpus* sp.

References: **(hb)** Browne 1961c: 146. **(ds)** Browne 1961c: 146. **(tx)** Schedl 1942a: 196, 1958h: 498.

barbatomorphus (Schedl) 1951i: 72 (*Xyleborus*). Holotype ♀; Formosa, Chekakunai, Daibu; Schedl Collection in NHMW, Wien.

Distribution: Asia (Taiwan).

References: **(ds)** Nobuchi 1967: 21. **(tx)** Schedl 1951i: 72, 1979c: 34.

barbatulus (Schedl) 1934d: 86 (*Xyleborus*). Lectotype ♀; Java Gn. Gedeh, 1480 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 34.

Distribution: Indonesia (Java).

Hosts: *Eupatorium* sp.

References: **(tx)** Schedl 1934d: 86, 1942a: 193, 1951i: 72, 1979c: 34.

barbatus (Hagedorn) 1910b: 11 (*Xyleborus*). Syn-types 3 ♀; Sumatra; 1 in Hamburg Museum, lost, 2 in MNB, Berlin.

Distribution: Australia, Indonesia (Mentawai, Sumatra), New Guinea.

Hosts: *Araucaria cunninghamii*, *Cinnamomum* sp., *Pterocymbium beccarii*. See also Gray & Wylie 1974.

References: **(bv)** Gray, B. 1974c. **(cn)** Gray, B. & Wylie 1974; Roberts 1987. **(hb)** Gray, B. 1974c; Gray, B. & Wylie 1974; Roberts 1987. **(ds)** Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 286;

Schedl 1936j: 19, 1966b: 47, 1968c: 263, 1971f: 148, 1979a: 158. **(tx)** Eggers 1927b: 408; Hagedorn 1910a: 152, 1910b: 11; Nobuchi 1983: 302; Numberg 1959a: 415; Schedl 1934c: 39, 1934d: 86, 1936d: 19, 1937e: 543, 1942a: 193, 1954a: 140, 1955b: 281; Wylie & Yule 1977.

benguetensis (Schedl) 1951i: 71 (*Xyleborus*). Holotype ♀; Philippines, Luzon, Baguio, Mt. St. Thomas; Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands (Luzon).

References: **(ds)** Schedl 1966b: 47. **(tx)** Nobuchi 1983: 302; Schedl 1951i: 71, 1979c: 36.

bicolor (Blandford) 1894d: 113 (*Xyleborus*). Syntypes 5 ♀; Nagasaki, Inasa [Japan]; BMNH, London.

Distribution: Asia (Bangladesh/ Burma/ Yunnan in China/ Andaman Islands, Assam, Bengal, Nicobar Islands, Uttar Pradesh in India/ Japan/ Malaya/ Sri Lanka), Fiji Islands, Indonesia (Borneo, Java), Philippine Islands (Luzon), Samoan Islands, Solomon Islands.

Hosts: *Albizia moluccana*, *Castanopsis tribuloides*, *Duabanga sonneratioides*, *Eugenia jambolana*, *Heritiera fomes*, *Isonandia polyantha*, *Lindera latifolia*, *Mallotus philippinensis*, *Myristica andamanica*, *Nyssa sessilifolia*, *Shorea robusta*, *Sideroxylon maranthum*, *Terminalia belerica*, *T. bialata*, *T. procera*.

References: **(cn)** Beaver 1988a: 65; Mathur & Singh 1960b: 73, 1961a: 45, 1961b: 26; Roonwal 1954: 54. **(cc)** Beeson 1923; Roberts 1977a: 252. **(hb)** Beaver 1988a: 65; Beeson 1923; Browne 1961c: 147–148; Kalshoven 1959c: 141; Roberts 1977a: 252; Speyer 1923: 19; Takahashi 1989: 403. **(ds)** Beaver 1988a: 65; Beeson 1923, 1930: 213, 1938b, 1961: 303; Bhasin, Roonwal, & Singh 1958; Blandford 1894c; Browne 1961a: 305, 1961c: 147, 1974a: 65, 1980a: 372; Hagedorn 1910d: 99; Kalshoven 1959c: 141; Kleine 1913b: 160, 1914b: 260; Mathur & Singh 1960b: 73, 1961a: 45, 1961b: 26; Murayama 1951a: 6, 1954b: 176, 1955: 102; Roonwal 1954: 54; Schedl 1966b: 47; Speyer 1923: 11–23. **(tx)** Beeson 1930: 213; Blandford 1894d: 113; Eggers 1923a, 1930d: 204; Hagedorn 1910a: 152; Murayama 1934c: 295, 299, 1954b: 176, 1955: 102; Nobuchi 1983: 302; Sampson 1923b: 289; Schedl 1934f: 1645, 1958k: 147.

bicolor unimodius Beeson 1929: 238 (*Xyleborus*).

Holotype ♀; Tutuila: Pago Pago; BMNH, London. Synonymy: Wood 1989: 172.

References: **(cc)** Roberts 1977a: 266. **(hb)** Roberts 1977a: 266. **(ds)** Roberts 1977a: 266. **(tx)** Beeson 1929: 238–239, 1938: 291; Browne 1974a: 71; Schedl 1951k: 137; Wood, S. L. 1989: 172.

rodgeri Beeson 1930: 213 (*Xyleborus*). Holotype ♀; Andamans: Middle Island; FRI, Dehra Dun. Synonymy: Wood 1989: 173.

References: **(cn)** Mathur & Singh 1961b: 38;

Roonwal 1954: 67. **(ds)** Beeson 1930: 213, 253–255, 1961: 308; Mathur & Singh 1961b: 38; Roonwal 1954: 67; Schedl 1959a: 504, 1971a: 279, 1971c: 370. **(tx)** Beeson 1930: 213; Schedl 1959a: 504, 1979c: 213; Wood, S. L. 1989: 173.

rodgeri privatus Beeson 1930: 213 (*Xyleborus*). Syntypes ♀; Andamans: Middle Island; FRI, Dehra Dun. Synonymy: Wood 1989: 173.

References: **(cn)** Mathur & Singh 1961b: 28. **(ds)** Beeson 1961: 308; Mathur & Singh 1961b: 28. **(tx)** Beeson 1930: 213, 255; Schedl 1959a: 504, 1979c: 213; Wood, S. L. 1989: 173.

ramcus Schedl 1940b: 441 (*Xyleborus*). Syntypes ♀; Mt. Makiling, Laguna, Luzon; Schedl Collection in NHMW, Wien. Synonymy: Kalshoven 1959: 141.

Notes: (1) Schedl 1979c: 209 (citation of holotype invalid).

References: **(ds)** Lever 1940: 38–42, 1942: 23–24. **(tx)** Kalshoven 1959: 141; Schedl 1940b: 441–442, 1942d: 47, 1951k: 138, 1958h: 498, 1958k: 147, 1979c: 209.

comptus (Sampson) 1919: 111 (*Xyleborus*). Holotype ♀; Ceylon; BMNH, London.

Distribution: Asia (Sri Lanka).

Hosts: *Hevea brasiliensis*.

References: **(cn)** Mathur & Singh 1960b: 43. **(hb)** Speyer 1923: 19. **(ds)** Beeson 1930: 231, 1961: 303; Kleine 1934a: 172; Mathur & Singh 1960b: 43; Sampson 1919: 171; Schedl 1959a: 498. **(tx)** Beeson 1930: 231; Sampson 1919: 11; Schedl 1959a: 498.

destruens (Blandford) 1896b: 221 (*Xyleborus*).

Syntypes ♂ ♀; Gilolo, Java; BMNH, London.

Figures: Nobuchi 1978a: pl. 3, Wood 1960a: 58.

Distribution: Asia (Yunnan in China/ Andaman Islands in India/ Malaya), Australia, Fiji Islands, Indonesia (Borneo, Java, Sumatra), Micronesia (Caroline Islands, Palau Island), New Guinea, New Hebrides Islands, Philippine Islands, Samoan Islands.

Hosts: *Artocarpus elasticus*, *Intsia palenbanica*, *Tectona grandis*, *Theobroma cacao*, *Turpinia latifolia*.

Note: (3) *E. tonkinensis* is a synonym (DEB).

References: **(bv)** Kabir & Giese 1960a: 889; Kalshoven 1962a. **(cn)** Alphen de Veer & E. J. Van 1956a: 387; Browne 1968b: 714; Ferguson 1949: 387–389; Hagedorn 1913a; Hall 1919: 1–50, 1921: 12, 1922: 45, 1925: 1–51, 1926: 12, 1932: 265; Kalshoven 1922: 788, 1928: 596, 1932: 243, 1933b: 57, 1936c, 1938: 78, 1939: 322, 1951: 851, 1953b: 157, 1961c, 1961cc, 1962a; Kleine 1932a: 307; Muller 1933: 105–107, 125, 187; Natawiria & Tarumingkeng 1971; Van der Goot 1928: 54; Yunus & Hua 1980: 230. **(cc)** Browne 1958b; Kabir 1966a: 893, 1966b: 899; Kalshoven 1961c: 5–21, 1962a; Norris 1979. **(hb)** Beeson 1929: 240; Browne

1958b, 1961c: 132, 1968b: 714; Hagedorn 1913a; Kalshoven 1951: 851, 1958b: 158, 1959a: 225, 1959c: 140, 1961c, 1962a; Kleine 1932a: 307; Natawiriya & Tarumingkeng 1971; Roepke 1919c: 68. (**ds**) Alphen de Veer & E. J. Van 1956; Beeson 1929: 240, 1935b: 292; Browne 1961c: 132–133, 1965a: 189, 1966: 248, 1968b: 714, 1980c: 484, 1980d: 490; Hagedorn 1910d: 101, 1913a; Kalshoven 1920: 1–26, 1925b: 11, 1932: 243, 1933b: 57, 1959c: 140, 1962a: 7; Kleine 1913b: 160, 1932a: 307, 1934a: 173; Murayama 1936b: 115; Nobuchi 1975a: 33; Nunberg 1961b: 610; Ohno, Yoneyama, & Nakazawa 1957a: 88, 1957b: 94; Ohno, Yoshioka, Uchida, Yoneyama, & Nakazawa 1959: 61; Ohno, Yoskioka, Yoneyama, & Nakazawa 1958a: 93; Schedl 1936g: 528, 1964c: 305, 1969a: 204, 1971f: 148, 1980b: 184; Wood, S. L. 1960a: 51. (**tx**) Beeson 1929: 240; Blandford 1896b: 221, 1895c; Eggers 1923a: 200, 1927c: 98, 1930d: 193–194; Hagedorn 1910a: 153; Kalshoven 1959a: 225; Nobuchi 1975a: pl. 3; Nunberg 1959a: 423; Ohno, Yoneyama, & Nakazawa 1952a: 4; Roepke 1919c: 68–71; Schedl 1942d: 5–6, 1950f: 52, 1951i: 42, 72, 1951k: 137, 1955b: 283; Wood, S. L. 1960a: 53, 58; Wylie & Yule 1977.

pseudobarbatus Schedl 1942a: 193 (*Xyleborus*).

Syntypes ♀; Malaya, Kuala Lumpur; BMNH, London, and Schedl Collection in NHMW, Wien. Synonymy: Wood 1959: 173.

References: (**ds**) Browne 1961c: 133. (**tx**) Schedl 1942a: 193, 1951i: 72, 1979c: 200; Wood, S. L. 1959: 173.

nandarivatus Schedl 1950f: 52 (*Xyleborus*). Syntypes 2 ♀; Viti Levu: Navai Mill, near Nandarivatu, Tholo North; BPBM, Honolulu and Schedl Collection in NHMW, Wien. Synonymy: Wood 1959: 173.

References: (**ec**) Roberts 1977a: 260. (**hb**) Roberts 1977a: 260. (**ds**) Browne 1974a: 65; Roberts 1977a: 260; Schedl 1972b: 266. (**tx**) Schedl 1950f: 52, 1979c: 163; Wood, S. L. 1959: 173.

dilatatifomis (Schedl) 1971a: 285 (*Xyleborus*). Holotype ♀; Sabaragamuwa Prov., Deerwood, Kuruvitia, 6 miles NNW Ratnapura; Ent. Mus., Univ. Lund Collection.

Figures: Schedl 1971a: 283.

Distribution: Asia (Sri Lanka).

References: (**tx**) Schedl 1971a: 283, 285, 1979c: 80.

filiformis (Schedl) 1975f: 364 (*Xyleborus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe Dist., New Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (**tx**) Schedl 1975f: 364, 1979c: 96.

fornicatus (Eichhoff) 1868c: 151 (*Xyleborus*). Syntypes, sex?; Ceylon; Hamburg Museum, lost.

Figures: Frolich & Rodewald 1969, Nobuchi 1967: pl. 1, Samuelson 1981: 54, Wood 1960a: 56.

Distribution: Asia (Bangladesh/ Bonin Islands/ Burma/ Guangdong, Sichuan, Yunnan Xizang [Tibet] in China/ Assam, Bengal, Maharashtra, Tamil Nadu, Uttar Pradesh in India/ Malaya/ Sri Lanka/ Taiwan/ Thailand/ Tonkin Island in Vietnam), Australia, Fiji Islands, Grande Comoro Island, Hawaiian Islands, Indonesia (Java, Sumatra), Micronesia (Caroline Islands), New Britain Island, New Guinea, Niue Island, North America (introduced into: Panama), Philippine Islands, Reunion Island, Samoan Islands.

Hosts: *Albizia falcata*, *A. moluccana*, *A. odoratissima*, *A. sumatrana*, *Artocarpus* sp., *Bauhinia variegata*, *Camellia sinensis*, *Cassia siamea*, *Casuarina equisetifolia*, *Chlorophora excelsa*, *Cinnamomum* sp., *Clerodendron colebrookianum*, *C. infortunatum*, *Crotalaria striata*, *Crotalaria* sp., *Embelia* cf. *insubens*, *Erythrina lithosperma*, *E. orientalis*, *Gliricidia sepium*, *Gmelina arborea*, *Grevillia robusta*, *Hevea brasiliensis*, *Ixora parviflora*, *Myristica fragrans*, *Ochroma lagopus*, *Odina wodier*, *Populus* sp., *Pterocymbium beccarii*, *Ricinus communis*, *Robinia pseudoacacia*, *Salmalia malabarica*, *Shorea robusta*, *Tectona grandis*, *Tephrosia candida*, *T. vogelli*, *Terminalia catappa*, *Theobroma cacao*, *Whitfordiodendron pubescens*, *Xylia xylocarpa*.

Notes: (3) Schedl Collection lists *nigricans* Eggers, nomen nudum, as a synonym.

References: (**ay**) Farris 1963: 257; Fernando 1959, 1960, 1963; Finnegan 1963: 137; Gardner 1934b: 1–17; Herfs 1949: 26; Sivapalan & Shivanandaraiah 1977b, 1997c. (**bv**) Aulman 1911; Bletchly 1961: 15; Calnaido 1965, 1966; Gray, B. 1974c; Judenko 1957: 29, 1958d: 104; Kalshoven 1961b: 102; Wickremasinghe & Thiruganasuntharam 1950. (**cn**) Ananda 1937: 1424, 1943: 10–15; Andrews 1913: 94–95; Anonymous 1916b: 41, 1956b: 83–143, 1960c, 1960t, 1961d, 1966j, 1967f, 1967i, 1967u, 1973p; Anstead 1920: 179; Austin 1954, 1955, 1956: 97–102, 1958; Baptist 1956: 28–35; Barlow 1896; Beeson 1925: 371–372; Bernard 1908a, 1914, 1921: 1–32; Bos 1923; Bontan 1907; Browne 1952, 1968: 715; Calnaido 1965: 249, 1966: 185–199, 1971, 1972; Calnaido & Kanapathipillai 1967: 275–281; Calnaido, Ranasinghe, & Thiruganasuntharan 1972a, 1972c; Calnaido & Thiruganasuntharan 1966: 28–45; Chevalier 1931; Cowling et al. 1956; Cranham 1960, 1961a: 62, 1966a: 56–58, 1966c: 481–504; Cranham, Danthanarayana, & Ranaweera 1962; Cranham, Kanapathipillai, & Kathiravetpillai 1968; Cranham & Kathiravetpillai 1964; Danthanarayana 1966: 100–113, 1967: 153–177, 1968; Danthanarayana, Fernando, & Shanmugam 1968: 94–118; Devadas et al. 1989; Dias 1936: 60–66; Duport 1911; Ebeling 1959; Eden 1958, 1965; Fernando 1959: 50, 475–480; Fisher, Thompson, & Webb 1953; Frolich & Rodewald 1969: 99; Gadd 1941a, 1942a, 1942b, 1943a, 1943b, 1943c, 1944a, 1944b, 1944c,

- 1944d, 1944e, 1946a, 1946b, 1947a: 197, 1947b: 114, 1949: 61–76; Gadd & Jardine 1923: 299–304; Gadd & Jepson 1922: 1–30; Green 1903a, 1903b, 1906, 1909a, 1910, 1911: 2–5, 1912a: 35; Grunwald 1930: 1–58; Hagedorn 1913a; Hainsworth 1952: 18; Hall 1919: 1–50, 1924: 1–47, 1924: 1–53, 1925: 1–51, 1926: 12; Herfs 1949: 216, 1950: 5; Hill, D. S. 1983: 496; Hutson 1920: 8–10, 1924: 91–93, 1932: 111–121; Illankoon 1956; Jardine 1920: 31–34, 1923b: 72–75; Jepson 1920, 1921: 23–30, 1922a: 24–27, 1922b: 118–125, 1922c, 1923: 19–21, 1926a, 1933: 106–123; Jepson & Gadd 1922, 1925, 1926; Joachim 1958: 61, 1959: 29; Judenko 1956: 103, 1958b: 104, 115, 1958c: 47, 51, 1959: 81, 1960a: 19–25, 1960b, 1960c: 72–75, 1961a: 155, 1961b, 1961c, 1962; Judenko, Shanmugan, & Hasselo 1962; Kalshoven 1924c: 58–72, 1925b: 1, 1925c: 3, 1928: 617, 1932: 251, 1933: 5, 1951: 851, 1953a: 233, 1954: 10; King 1934: 26–30, 34–37, 1937: 31–37, 1939: 35, 1940a: 111–116, 1940b: 35–40, 1941: 43–49; Kleine 1913b: 161, 1914b: 274, 1932a: 306, 1934a: 173; Lester-Smith 1937: 36; Lewton-Brain 1914: 1–45; Light 1927: 16–20, 1928: 25–34, 1929: 37–48, 1947: 17; Lovett 1923: 5; Marchal 1909: 225; Mathur & Singh 1960a: 5, 1960b: 17, 1961a: 13, 1961b: 14; Maxwell-Lefroy 1909: 393; Mayne 1945: 356; Muraleedharan 1954, 1956: 86, 1957; Muraleedharan & Radhakrishnan 1959; Newton 1960; Petch 1921: 233; Pierce, W. D. 1917: 211; Portsmouth 1956: 92; Pyper 1956: 127; Ramachandra 1928: 1–30; Ranasinghe & Wickremasinghe 1958; Ranaweera 1959: 78, 1967; Ranaweera & Fernando 1967; Rao, G. N. 1973; Rau 1936: 35, 1939: 20–27, 1940: 15, 1941: 41–50; Reeve 1923: 1–22; Roark 1939: 308; Roepke 1909: 365; Roonwal 1954: 45; Rutgers & Dammerman 1914: 32; Rutherford 1914a: 307–309, 1914b: 220, 1914c: 131, 1915: 220–222; Samarakoon & Shanmugan 1967; Schedl 1936g: 528; Shanmugan 1967a, 1967b, 1967c; Shanmugan & Fernando 1967; Sonan 1939: 795–800; Sonan & Tadasa 1939: 83–110; Speyer 1916: 248–252, 1917a: 7–9, 1917b: 1, 1917c: 152–155, 1918a: 102, 1918b: 373, 1919a: 67, 1919c: 1, 1919d: 1, 1922: 1–16, 1923: 11–23; Stebbing 1914: 589; Stockdale 1920: 276; Stubbs 1914: 1049; Thirugnanasuntharan 1957; Tolhurst 1956: 120; Vuillaume et al. 1981; Walter 1956: 107; Webster & Visser 1956: 114; Wickremasinghe, Perera, & Perera 1976; Wickremasinghe & Thirugnanasuntheran 1980; Wilson 1956: 129; Wurth 1910: 104; Wyniger 1962a: 37; Yunus & Hua 1980: 230. (cc) Anonymous 1956b: 83–143; Banerjee 1983; Baptist 1956; Barlow 1896; Browne 1958b; Calnaido 1964; Calnaido & Kanapathapillai 1967; Calnaido, Ranasinghe, & Thirugnanasuntharan 1972b; Calnaido & Thirugnanasuntharan 1966; Cowling 1956; Danthararayana 1973; Danthararayana & Kathiravetpillai 1970; Farris 1963: 257; Fernando 1960, 1963; Finnegan 1963: 137; Gadd 1942a; Gadd & Loos 1947; Green 1903b, 1909b, 1910, 1911; Grunwald 1930; Judenko 1958a: 112; Muraleedharan, Selvasundaram, & Radhakrishnan 1958; Neger 1911a: 53; Norris 1979; Ranasinghe & Wickremasinghe 1958; Sivapalan 1977; Stebbing 1914: 589; Thompson, W. R. & Simmonds 1964: 39, 1965: 110; Vuillaume et al. 1981. (hb) Andrews 1913; Anonymous 1956n: 83–143; Anstead 1920; Aulmann 1911; Beeson 1916a: 216–223; Browne 1935a, 1958b, 1961c: 128–132, 1968: 715; Calnaido 1965, 1966; Calnaido, Ranasinghe, & Thirugnanasuntharan 1972b; Cranham 1966c; Danthararayana 1973; Duport 1911; Eden 1958, 1965; Fernando 1960, 1963; Gadd 1941b, 1942a, 1946b, 1946c, 1947a, 1949; Gadd & Loos 1947: 13–18; Gray, B. 1974c; Green 1903b; Hagedorn 1912: 33, 1913a; Herfs 1949: 26; Hill, D. S. 1983: 496; Judenko 1957: 29, 1957a: 56, 1958a: 112, 1958d: 104; Kalshoven 1924c, 1951: 551, 1958a: 147, 185–187, 1959c: 140, 1961b; Kleine 1932a: 306; Koningsberger & Zimmerman 1901: 94; Morstatt 1924: 46; Muraleedharan 1954, 1956: 86; Sivapalan 1975, 1977; Sivapalan & Shivanandharajah 1977a, 1977b; Speyer 1917b: 1, 1917c: 152, 1923: 12; Stebbing 1914: 589; Wickremasinghe & Thirugnanasuntheran 1950. (ds) Anonymous 1960t, 1966j, 1967i, 1973p; Anstead 1920; Beaver 1990a: 280; Beaver & Browne 1975: 608; Beaver & Maddison 1990: 137; Beeson 1916a, 1925, 1930, 1938: 292, 1961: 304; Bhasin, Roonwal, & Singh 1958; Blandford 1895a, 1896b, 1898a; Bletchly 1961: 15; Browne 1935a, 1961c: 128, 1968: 715, 1974a: 65; Carpenter 1929; Chevalier 1931; Dumbleton 1954; Ebeling 1959; Gadd 1946b; Gemminger & Harold 1872: 2685; Green 1912a: 38; Hagedorn 1910d: 104, 1913a; Hill, D. S. 1983: 496, 1957: 341; Judenko 1960b, 1960c; Kalshoven 1924b: 356, 1925b: 1, 1925c: 3, 1932: 251, 1933: 5, 1958a: 147, 187, 1958c: 220–230, 1959c: 140, 1961b; Kleine 1932a: 306; Koningsberger 1908: 76; Lefroy & Howlett 1909: 393; Mathew 1982, 1986, 1987: 188; Mathur & Singh 1960a: 5, 1960b: 17, 1961a: 13, 1961b: 14; Miwa 1931: 269; Muraleedharan & Kandasamy 1981; Nobuchi 1967: 21; Nobuchi & Ono 1973: 182; Numberg 1961b: 610; Pierce, W. D. 1917: 211; Rai & Bhandary 1973; Roberts 1977a: 259; Roonwal 1954: 45; Rutherford 1914a: 307; Samuelson 1981: 73; Schedl 1936g: 528, 1959a: 498, 1961c: 70, 1962b: 156, 1966b: 54, 1969c: 52, 1969d: 10, 1971a: 282, 1975a, 1977b: 144, 1979a: 158; Speyer 1916: 248, 1918c: 1; Sprecher 1934: 150; Swezey 1941: 121; Thomas, R. T. S. 1960a, 1960b; Wood, S. L. 1960a: 51, 1980b: 353; Yin & Huang 1981: 568; Yin, Huang, & Li 1984: 167; Yunus & Hua 1980: 230. (tx) Aulmann 1911; Beeson 1930: 234–236; Eggers 1920, 1922a: 85, 1922b: 174, 1923d: 185–186, 1927b: 407, 1930d: 192–196; Eichhoff 1868c: 151, 1878b: 327; Frolich & Rodewald 1969; Gardner 1934b; Green

1912a: 38; Hagedorn 1910a: 154, 1912b; Nobuchi 1967: pl. 1, 1983: 302; Nunberg 1959: 425, 1961b: 610; Sampson 1911: 383–384, 1913: 443–444, 1923a: 270; Samuelson 1981: 54, 73; Schedl 1934g: 177–178, 1939e: 330, 1941f: 112, 1942a: 170–171, 1951i: 42, 59, 1952c: 62, 1954a: 141, 1955b: 284–285, 1958b: 101, 1958k: 150–151, 1959a: 498, 1977b: 144; Stebbing 1914: 589; Weele 1910: 308; Wood, S. L. 1960a: 51, 56; Wylie & Yule 1977; Yin & Huang 1981: 568; Yin, Huang, & Li 1984: 167. (ms) Bernard 1914; Jardine 1920: 31.

fornicator Eggers 1923a: 184 (*Xyleborus*). Lectotype ♀; Ceylon (Peradeniya); USNM, Washington, designated by Anderson & Anderson 1971: 13. Synonymy: Beeson 1930: 235.

References: (cn) Gadd 1941, 1943, 1944, 1946; Kleine 1932a: 307; Thirugnanasuntharan & Jayachandran 1989. (hb) Kleine 1932a: 307. (ds) Beeson 1930: 235, 1961: 305; Kleine 1932a: 307. (tx) Anderson, W. H. & Anderson 1971: 13; Beeson 1930: 59–60; Eggers 1922a: 84–88, 1922b: 174, 1923a: 184–185, 1936d: 626; Nunberg 1959a: 425; Sampson 1923a: 270; Schedl 1931c: 346, 1934g: 177, 1959a: 498, 1979c: 99.

whitfordiendrus Schedl 1942a: 189 (*Xyleborus*). Lectotype ♀; Malaya, Negri Sembilan, Pasoh F. R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 269. Synonymy: Wood 1989: 173.

References: (ds) Browne 1961c: 126. (tx) Schedl 1942a: 189, 1951i: 62, 1979c: 269; Wood, S. L. 1989: 173.

perbrevis Schedl 1951i: 59 (*Xyleborus*). Holotype ♀; Philippinen, Prov. Rizal, Mt. Puro; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 173.

References: (ds) Schedl 1966b: 63, 1975h: 352. (tx) Nobuchi 1983: 303; Schedl 1951i: 59, 1979c: 188; Wood, S. L. 1989: 173.

schultzei Schedl 1951i: 68 (*Xyleborus*). Lectotype ♀; Philippinen, Luzon, Manila, Mt. Makiling; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 222. Synonymy: Wood 1989: 173, Beaver 1991: 90.

References: (ds) Browne 1974a: 65; Schedl 1966b: 68. (tx) Beaver 1991: 90; Nobuchi 1983: 303; Schedl 1950f: 40, 1951i: 59, 68, 1952b: 364, 1979c: 222; Wood, S. L. 1989: 173.

tapatapaensis Schedl 1951k: 152 (*Xyleborus*). Lectotype ♀; Upolu, Tapatapoa, 800 ft.; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 173.

References: (hb) Beaver 1976b: 541. (ds) Beaver 1976b: 541. (tx) Schedl 1951k: 138, 152, 1979c: 250; Wood, S. L. 1989: 173.

fulvus (Murayama) 1936a: 142 (*Xyleborus*). Holotype ♀; Hokidaisen, Japan; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan).

References: (ds) Murayama 1936a: 132, 142–143. (tx) Murayama 1936a: 132, 142–143; Nobuchi 1985c: 24.

galeatus (Blandford) 1894d: 123 (*Xyleborus*). Holotype ♂; Nagasaki, Japan; BMNH, London. Distribution: Asia (Japan).

References: (ds) Blandford 1894c: 579; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 260; Nobuchi 1985c: 24. (tx) Blandford 1894d: 123; Hagedorn 1910a: 154; Murayama 1934: 289; Schedl 1934f: 1646.

goloanus Browne 1974a: 69. Holotype ♀; Fiji: Viti Levu, Galoa; BMNH, London.

Distribution: Fiji Islands.

Notes: (3) Schedl 1980d: 121 (a synonym of *illustris*). Beaver 1991: 90 (a good species).

References: (tx) Browne 1974a: 65; Roberts 1977a: 259. (tx) Beaver 1991: 90; Browne 1974a: 65, 69; Schedl 1980d: 121.

granosus (Schedl) 1957d: 101 (*Xyleborus*). Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren.

Figures: Nunberg 1963b: pl. 16.

Distribution: Africa (Zaire).

Hosts: *Afrostryax lepidophyllus*, *Allophyllus africanus*, *Dalium corbisieri*, *Guarea cedrata*, *Pycnanthus angolensis*.

References: (hb) Schedl 1962j: 109–110. (ds) Schedl 1962h: 60, 1962j: 109–110, 1962k: 1100. (tx) Anonymous 1962j: 109–110, 1979c: 110; Browne 1965a: 202; Nunberg 1963b: 34, pl. 16; Schedl 1957d: 101.

illustris Schedl 1939f: 51. Lectotype ♀; Java, Mt. Gede, Tapos; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 120.

Distribution: Indonesia (Java), Fiji Islands.

Hosts: Rattan.

References: (tx) Schedl 1939f: 49–52, 1979c: 120.

interjectus (Blandford) 1894c: 576 (*Xyleborus*). Holotype ♀; Japan, China (Chusan Is.); BMNH, London.

Figures: Kumar & Chandra 1977: 43 (male), Nobuchi 1978a: pl. 3, Samuelson 1981: 56.

Distribution: Asia (Bangladesh/ Burma/ Fujian, Gansu, Guangdong, Hunan, Sichuan, Yunnan, Xizang [Tibet] in China/ Andaman Islands, Assam, Bengal, Maharashtra, Tamil Nadu, Uttar Pradesh in India/ Japan/ Nepal/ Sri Lanka/ Taiwan/ Vietnam), Hawaiian Islands, Indonesia (Borneo, Java, Mentawai, Sumatra), Philippine Islands.

Hosts: *Anthocephalus cadamba*, *Artocarpus integrifolia*, *Bombax malabaricum*, *Castanopsis indica*, *Cudrania javanensis*, *Erythrina* spp., *Euphorbia royleana*, *Ficus* spp., *Caruga pinnata*, *Cmelina arborea*, *Hevea brasiliensis*, *Hymenodictyon excelsum*, *Kydia calycina*, *Macaranga denticulata*, *Machilus* sp., *Mangifera indica*, *Odina woderi*, *Pinus massoniana*, *Poinciana clata*, *Pop-*

ulus sp., *Pterocarpus marsupium*, *Salmalia insignis*, *S. malabarica*, *Sarcocephalus cordatus*, *Shorea assamica*, *S. robusta*, *Spondias magnifera*, *Sterculia alata*, *S. campanulata*, *S. ornata*, *S. villosa*, *Tectona grandis*, *Terminalia bellerica*, *T. myriocarpa*, *Tetrameles nudiflora*, *Theobroma cacao*, *Xylia xylocarpa*.

Notes: (3) In the FRI, Dehra Dun Collection, *lophuensis* Beeson, nomen nudum, is a synonym. Kumar & Chandra 1977: 34 (described male).

References: (cn) Chatterjee 1917b: 1-4; Green 1912a: 39; Mackenzie 1922: 1-14; Roonwal 1954: 30; Stebbing 1914: 588; Yunus & Hua 1980: 230. (ce) Browne 1958b; Mathew 1985; Stebbing 1914: 588. (hb) Beeson 1933: 7-12; Browne 1958b, 1961c: 124-126; Kalshoven 1959c: 138; Speyer 1923: 18; Stebbing 1914: 588. (ds) Beeson 1930: 239, 1933: 7-12, 1961: 306; Bhasin, Roonwal, & Singh 1958; Blandford 1894c, 1895a; Browne 1980a: 372; Chatterjee 1917b: 1-4; Green 1912a: 39, 1916: 608-636; Hagedorn 1910d: 106; Kalshoven 1959c: 138; Kleine 1913b: 161, 1914b: 260, 280, 1934a: 173; Mathew 1987: 189; Murayama 1934d: 508, 1936a: 133; Nobuchi 1967: 22, 1978a: 33; Ohno, Yoneyama, & Nakazawa 1982b: 8; Ohno et al. 1988a: 94; Roonwal 1954: 30; Schedl 1936d: 4, 1959a: 500, 1965a: 340, 1965g: 22, 1966b: 57, 1969a: 207, 1971a: 278, 1971c: 368, 1972j: 225, 1973b: 211, 1973c: 379, 1974c: 262, 1975a, 1975e: 451; Yin, Huang, & Li 1984: 166; Yunus & Hua 1980: 230. (tx) Beeson 1930: 239, 1933: 12; Blandford 1894c: 576; Eggers 1923a: 197-200, 1925: 159, 1927b: 408, 1930d: 192, 195, 1932d: 296; Green 1912a: 39; Hagedorn 1910a: 154; Kumar & Chandra 1977: 34, 43; Murayama 1934c: 299, 1936a: 133-134; Nobuchi 1978a: pl. 3, 1983: 303, 1985c: 25; Samuelson 1981: 56, 77; Schedl 1933e: 103, 1934f: 1646, 1936d: 4, 1939e: 331, 1942a: 189, 1942d: 5, 36, 1951i: 42, 68, 1958k: 155, 1959a: 500, 1961b: 71, 1961f: 93, 1965g: 22, 1972q: 258; Stebbing 1914: 588; Yin & Huang 1981: 568; Yin, Huang, & Li 1984: 166.

pseudovalidus Eggers 1925: 159 (*Xyleborus*). Syntypes, sex?, Tenasserim (Birma), Fuhosho (Formosa), OstJava; Prague Museum, and 1 in Eggers Collection, NHMW, Wien. Synonymy: Schedl 1958a: 155.

References: (hb) Kalshoven 1959: 139. (tx) Eggers 1925: 159, 1927b: 407, 1936d: 626, 1941b: 222; Schedl 1950g: 893, 1951i: 71, 1953e: 22, 1955b: 45, 1958k: 155, 1979c: 202.

khayae (Schedl) 1957e: 880 (*Xyleborus*). Holotype ♀; Tanganyika; BMNH, London.

Distribution: Africa (Tanzania).

Hosts: *Khaya nyasica*.

References: (ds) Schedl 1965j: 259. (tx) Schedl 1957e: 880, 1962j: 259, 1979c: 132.

kororensis (Wood) 1960a: 63 (*Xyleborus*). Holotype ♀; Koror, Palau Islands, Micronesia; USNM, Washington.

Figures: Wood 1960a: 62.

Distribution: Micronesia (Koror in Palau Islands).

References: (ds) Ohno et al. 1988a: 94. (tx) de Ruette 1970: 115; Wood, S. L. 1960a: 62-63.

laevis (Eggers) 1923a: 201 (*Xyleborus*). Lectotype ♀; Kendal auf Java, Rahim (Neupommeri); USNM, Washington, designated by Anderson & Anderson 1971: 17.

Figures: Nobuchi 1978a: pl. 3, Wood 1960a: 62.

Distribution: Asia (Yunnan in China/Malaya), Bismarck Islands, Indonesia (Borneo, Java), Micronesia (Caroline Islands, Kusaie Island, Ponape Island), New Guinea, Philippine Islands.

Hosts: *Eugenia* sp., *Theobroma cacao*. Browne 1961c: 145 cites 11 plant families as hosts without naming the genera or species.

References: (ce) Wichmann 1955a: 97. (hb) Browne 1961c: 145-146; Kalshoven 1959a: 225, 1959c: 141. (ds) Beeson 1938b: 292; Browne 1966: 254, 1980a: 373, 1981a: 125, 1984a: 150; Kalshoven 1959c: 141; Kleine 1934a: 174; Nobuchi 1978a: 36; Ohno et al. 1987: 88, 1988a: 94, 1989a: 62; Schedl 1966b: 58; Wichmann 1955a: 97; Wood, S. L. 1960a: 51. (tx) Anderson, W. H. & Anderson 1971: 17; Beeson 1929: 238-239; Eggers 1923a: 201, 1927b: 408; Kalshoven 1959a: 225; Nobuchi 1978a: pl. 3; Schedl 1936h: 64-65, 1938f: 51, 1939e: 354, 1940b: 441-442, 1942a: 196, 1942c: 164, 1942d: 48, 1950e: 214, 1950g: 895, 1979c: 136; Wood, S. L. 1960a: 51, 62-63.

limatus (Schedl) 1936h: 65 (*Xyleborus*). Holotype ♀; Luzon, Laguna Prov., Mt. Maquililing; Schedl Collection in NHMW, Wien.

Distribution: Asia (Malaya), Fiji Islands, Indonesia (Borneo, Java), New Guinea, Philippine Islands (Luzon).

Hosts: *Daemonorops* sp. (or *Calamus* sp.), *Hopea ferrea*, *Pterocarpus indicus*, *Whitfordiodendron pubescens*, *Xanthophyllum curtisii*.

References: (hb) Browne 1961c: 146-147. (ds) Beaver & Browne 1978: 609; Browne 1961c: 146-147, 1962c: 202, 1974a: 65; Schedl 1971c: 371. (tx) Schedl 1936h: 65, 1942a: 171, 1950f: 40, 1954a: 142, 1955b: 285, 1979c: 138.

loricatus (Schedl) 1933d: 200 (*Xyleborus*). Holotype ♀; Mt. Maquililing, Laguna Prov., Luzon; Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands (Luzon).

References: (ds) Schedl 1966b: 59. (tx) Nobuchi 1983: 303; Schedl 1933d: 200, 1979c: 142.

luctuosus (Eggers) 1939b: 13 (*Xyleborus*). Holotype ♀; Nordost-Birma (Kambaiti, 7000 Fuss); NHR, Stockholm.

Distribution: Asia (Burma).

References: (tx) Eggers 1939b: 13.

- lugubris** (Eggers) 1927c: 98 (*Xyleborus*). Holotype ♀; Philippinen; Hamburg Museum, lost.
Distribution: Philippine Islands.
References: (ds) Schedl 1966b: 59. (tx) Eggers 1927c: 98; Nobuchi 1983: 303.
- malloti** (Eggers) 1930d: 192 (*Xyleborus*). Holotype ♀; Dehra Dun, United Provinces; FRI, Dehra Dun.
Distribution: Asia (Bangladesh/ Tamil Nadu, Uttar Pradesh in India).
Hosts: *Ficus hispida*, *Gmelina arborea*, *Maesa* sp., *Mallotus philippinensis*.
References: (ds) Beeson 1930: 245, 1961: 307; Kleine 1934a: 174. (tx) Beeson 1930: 245; Eggers 1930d: 192; Schedl 1979c: 147.
- metanepotulus** (Eggers) 1939c: 119 (*Xyleborus*). Holotype ♀; Formosa (Hoorin Kwareenko); Chujo Collection.
Distribution: Asia (Taiwan).
References: (ds) Nobuchi 1967: 22. (tx) Eggers 1939c: 119.
- nigrosetosus** (Schedl) 1939f: 49 (*Xyleborus*). Lectotype ♀; Celebes, Gorontalo; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 168.
Distribution: Indonesia (Celebes).
Hosts: Rattan.
References: (hb) Kalshoven 1959c: 145. (ds) Kalshoven 1959c: 145. (tx) Schedl 1939f: 48–49, 1951i: 68, 1979c: 168.
- oparus** (Beeson) 1940: 201 (*Xyleborus*). Holotype ♀; Mangareva Islands, Rapa Island; Mangaoa Peak, NE ridge; BPBM, Honolulu.
Distribution: Mangareva Islands.
Hosts: *Cyathea* sp.
References: (tx) Beeson 1940: 201–203.
- pandae** (Schedl) 1957d: 86 (*Xyleborus*). Holotype ♀; Congo Belge; Yangambi; MRCB, Tervuren.
Figures: Nunberg 1963b: pl. 21, figs. 1–4.
Distribution: Africa (Zaire).
Hosts: *Musanga cecropioides*, *Pachylobus deliciosus*, *Pancovia laurentii*, *Panda oleosa*, *Paropsia schiebeniana*, *Ricinodendron heudelotii*, *Vernonia conferta*.
References: (hb) Schedl 1962j: 210. (ds) Schedl 1962j: 210. (tx) Nunberg 1963b: 42, pl. 21; Schedl 1957d: 86, 1962j: 210, 1979c: 183.
- piceus** (Motschulsky) 1863: 512 (*Anodius*). Holotype ♀; Ceylon: des Montagnes de Nura-Ellia; IZM, Moscow.
Figures: Nunberg 1959a: pl. 23, figs. 1–2.
Distribution: Africa (Angola/ Cameroon/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Nigeria/ South Africa/ Spanish Guinea/ Tanzania/ Uganda/ Zaire), Asia (Andaman Islands in India/ Malaya/ Sri Lanka/ Taiwan), Australia (Queensland), Fiji Islands, Indonesia (Borneo, Java, Mentawe), Madagascar, Micronesia, New Guinea, Philippine Islands, Samoan Islands.
Hosts: Many listed by Schedl 1962j: 477–483.
Artocarpus integrifolia, *Diospyros pyrrocarpa*, *Endospermum malaccense*, *Gmelina arborea*, *Koompasia malaccensis*, *Sterculia alata*.
References: (cn) Banerjee 1983; Beaver 1988a: 66. (hb) Beaver 1988a: 66; Beaver & Browne 1978: 611. (ds) Beaver 1976b: 541, 1988a: 66; Beaver & Browne 1978: 611; Browne 1980d: 490, 1983a: 556; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 109; Kleine 1913b: 162, 1914b: 274; Ohno, Yoneyama, & Nakazawa 1982b: 9, 1987a: 88; Ohno, Yoshioka, Yoneyama, & Nakazawa 1988a: 94, 1989: 63; Schedl 1978d: 73; Wood, S. L. 1957e: 1273. (tx) Hagedorn 1910a: 155; Motschulsky 1863: 512; Wood, S. L. 1969c: 117.
- indicus** Eichhoff 1878b: 354. Holotype ♀; Java, insula Asiatica; IRSNB, Brussels. Synonymy: Wood 1969c: 117.
References: (ay) Entwistle 1963b. (bv) Entwistle 1963b; Gray, B. 1974c; Schedl 1960f: 50; Schedl, W. 1962: 368–369. (cn) Anonymous 1953j: 25; Cachan 1957: 15, 43–53; Mathur & Singh 1960b: 17, 1961a: 69; Zehntner 1901. (cc) Anonymous 1953j: 25; Roberts 1977a: 259; Schedl 1962k: 472. (hb) Anonymous 1959i: 18; Browne 1936a, 1941: 67, 1961c: 115–117, 1963a: 241; Entwistle 1963b; Gray, B. 1974c; Jones 1957: 6; Jones, Roberts, & Baker 1959: 13–56; Kalshoven 1932: 245, 1959c: 142; Roberts 1977a: 259; Schedl 1962j: 472, 1977b: 158; Speyer 1923: 21; Webb & Jones 1957: 25–43. (ds) Beeson 1930: 239, 1941: 397, 1961: 305; Blandford 1895a; Brimblecombe 1953: 29; Browne 1936a: 122, 1963a: 241, 1966: 254, 1974a: 65, 1975a: 760; Ferreira 1965: 1123; Hagedorn 1910d: 106; Kalshoven 1959c: 142–143; Kleine 1913b: 161, 1914b: 288; Mathur & Singh 1960b: 17, 1961a: 69; Mayne & Donis 1960: 104, 1962: 319; Nobuchi 1978a: 35; Nunberg 1952: 21, 1961a: 330, 1965b: 21; Roberts 1960b: 35, 38, 1960e, 1960f, 1969: 132, 1977a: 259; Sampson 1921: 28; Schedl 1936g: 529, 1936j: 21, 1938g: 426, 1959a: 504, 1960j: 40, 1961j: 349, 1961m: 84, 1962j: 472, 1964e: 69, 1964f: 618, 1965e: 354, 1966b: 56, 1967c: 216, 1969a: 207, 1971a: 278, 1972e: 283, 1974c: 262, 1977b: 158, 1979a: 158, 1979f: 103, 1983: 279; Speyer 1923: 21; Thompson, G. H. 1963: 71; Wood, S. L. 1957e: 1273, 1960a: 51. (tx) Beeson 1929: 237–238, 1930: 239; Eggers 1923a: 201, 1927a: 404–405, 1927b: 198, 1927c: 92, 1941d: 179, 1943c: 66; Eichhoff 1878a: 392, 1878b: 354–355, 479; Hagedorn 1910a: 154; Nobuchi 1978a: pl. 3, 1983: 302; Nunberg 1952: 21, 1959a: 428; Sampson 1921: 28; Schedl 1933c: 103, 1936g: 529, 1936j: 21, 1938g: 426, 1941d: 380, 1942a: 171, 1942c: 163, 1950d: 9, 13, 1950e: 211, 214, 1950j: 898, 1951i: 45, 50, 1951j: 20, 1952j: 4.

- 1953g: 242, 1954a: 141, 1954d: 872, 1954e: 53, 1955b: 281, 284–285, 1955d: 269, 1955i: 212, 1957d: 84, 1959a: 504, 1961j: 349, 1961m: 84, 1962j: 472, 1962p: 207, 1964e: 69, 1964f: 618, 1966b: 254, 1969i: 140–141, 1971f: 149, 1977b: 158–159, 1979c: 123; Wood, S. L. 1960a: 51, 61–63, 1969c: 117; Wylie & Yule 1977.
- indicus subcoriaceus* Eggers 1927c: 92. Holotype ♀; Philippines: Mt. Santo Tomas; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1959a: 504.
References: (tx) Eggers 1927c: 92, 1959a: 504, 1962j: 474; Schedl 1979c: 124.
- imitans* Eggers 1927b: 404. Lectotype ♀; Insel Mentawai (Si Olan); USNM, Washington, designated by Anderson & Anderson 1971: 15. Synonymy: Wood 1969c: 117.
References: (tx) Anderson, W. H. & Anderson 1971: 15; Eggers 1927b: 404–405; Numberg 1964: 21; Schedl 1962p: 207, 1966b: 57, 1979c: 121; Wood, S. L. 1969c: 117.
- samoensis* Beeson 1929: 237. Holotype ♀; Samoa; BMNH, London. Synonymy: Wood 1960a: 63.
References: (ds) Beeson 1938b: 293. (tx) Beeson 1929: 237–238; Numberg 1964: 21; Schedl 1951k: 131, 137, 1955b: 285, 1979c: 218; Wood, S. L. 1960a: 61, 63.
- procerrimus* (Schedl) 1969a: 214 (*Xyleborus*). Holotype ♀; New Britain, Lolobau to Tokyo (Japan), imported; PPST, Tokyo.
Figures: Nobuchi 1978a: pl. 3.
Distribution: New Britain Island.
Hosts: Taun log.
References: (ds) Nobuchi 1978a: 34; Ohno et al. 1989: 63; Schedl 1965g: 22. (tx) Nobuchi 1978a: pl. 3; Schedl 1969a: 214–215, 1979c: 199.
- procerrissimus* (Schedl) 1942a: 194 (*Xyleborus*). Lectotype ♀; Malaya, Pahang, Cameron's Hill; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 199.
Distribution: Asia (Malaya).
References: (ds) Browne 1961c: 134. (tx) Schedl 1942a: 194, 1942c: 189, 1979c: 199.
- quadraticollis* (Eggers) 1923a: 197 (*Xyleborus*). Lectotype ♀; Mt. Makiling auf Luzon; USNM, Washington, designated by Anderson & Anderson 1971: 27.
Figures: Nobuchi 1978a: pl. 3.
Distribution: Philippine Islands (Luzon).
Hosts: *Diplodiscus paniculatus*, *Ficus* sp., *Swietenia mahagoni*.
References: (ds) Nobuchi 1978a: 31; Ohno, Yoneyama, & Nakazawa 1987a: 88; Schedl 1938g: 426, 1966b: 67, 1969a: 207. (tx) Anderson, W. H. & Anderson 1971: 27; Eggers 1923a: 197, 1927b: 406, 1927c: 94; Nobuchi 1978a: pl. 3, 1983: 303; Schedl 1979c: 207.
- duplicatus* Schedl 1933e: 102 (*Xyleborus*). Holotype ♀; Mount Maquilang, Laguna, Luzon; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 173.
References: (cn) Mathur & Singh 1961a: 80. (ds) Mathur & Singh 1961a: 80; Mesa 1935: 96. (tx) Schedl 1933e: 102–103, 1979c: 86; Wood, S. L. 1989: 173.
- rufoniger* (Schedl) 1934d: 89 (*Xyleborus*). Lectotype ♀; Java, Mt. Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 214.
Distribution: Indonesia (Java).
References: (hb) Kalshoven 1959c: 143. (ds) Kalshoven 1935a: 14, 1959c: 143. (tx) Schedl 1934d: 89, 1979c: 214.
- russulus* (Schedl) 1942c: 187 (*Xyleborus*). Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1942c: 187, 1979c: 217.
- sibsagaricus* (Eggers) 1930d: 196 (*Xyleborus*). Holotype ♀; Assam (Nambor Reserve, Sibsagar); FRI, Dehra Dun.
Distribution: Asia (Assam, Bengal in India).
Hosts: *Cascana glomerata*, *Dalbergia assamica*, *Ehretia acuminata*, *Sapium eugeniaefolium*, *Sterculia colorata*.
References: (cn) Mathur & Singh 1961a: 23. (ds) Beeson 1930: 259, 1961: 309; Bhasin, Roonwal, & Singh 1958; Kleine 1934a: 175; Mathur & Singh 1961a: 23. (tx) Beeson 1930: 259; Eggers 1930d: 196.
- dalbergiae* Eggers 1930d: 196 (*Xyleborus*). Holotype ♀; Assam (Upper Dihing Reserve, Lakhimpur); FRI, Dehra Dun. Synonymy: Wood 1989: 173.
References: (ds) Beeson 1930: 232, 1961: 304; Browne 1981b: 598; Kleine 1934a: 173; Ohno, Yoneyama, & Nakazawa 1987a: 88, 1987b: 94. (tx) Beeson 1930: 232; Eggers 1930d: 196–197, 1939b: 13; Schedl 1934c: 39, 1979c: 75.
- solomonicus* (Schedl) 1970b: 363 (*Xyleborus*). Holotype ♀; Solomons, Ringicove to Nagoya (Japan), imported; PPST, Tokyo.
Figures: Nobuchi 1978a: pl. 3.
Distribution: Solomon Islands.
References: (ds) Nobuchi 1978a: 34; Ohno et al. 1988a: 94, 1989: 64. (tx) Nobuchi 1978a: pl. 3; Schedl 1970b: 363–364, 1979c: 232.
- streblicola* Hopkins 1915b: 55. Holotype ♀; Pagbilao, Tayabas, P. I.; USNM, Washington.
Distribution: Philippine Islands.
Hosts: *Streblus* sp.
References: (ds) Kleine 1934a: 177; Schedl 1966b: 72. (tx) Hopkins 1915b: 55; Nobuchi 1983: 304; Schedl 1970b: 363–364.
- strombiformis* (Schedl) 1971c: 384 (*Xyleborus*). Holotype ♀?; Sumatra, Deli, Sibotangit; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Sumatra).

References: (tx) Schedl 1971c: 384–385, 1979c: 239.

subparallelus (Eggers) 1940d: 151 (*Xyleborus*). Lectotype ♀; Java (Batoerraden); USNM, Washington, designated by Anderson & Anderson 1971: 33.

Distribution: Indonesia (Java).

Hosts: *Artocarpus kunstleri*.

References: (ds) Beeson 1961: 309; Kalshoven 1959c: 141. (tx) Anderson, W. H. & Anderson 1971: 33; Eggers 1940d: 151–152; Schedl 1939c: 332, 1942d: 7, 1950g: 893, 1951i: 45, 1954a: 143, 1958k: 147, 1979c: 243.

talumalai (Browne) 1966: 248 (*Xyleborus*). Holotype ♀; Bismarck Islands: Mussau: Talumalau; UZMC, Copenhagen.

Distribution: Bismarck Islands.

References: (tx) Browne 1966: 248.

tonkinensis (Schedl) 1934c: 39 (*Xyleborus*). Holotype ♀; Tonkin; Schedl Collection in NHMW, Wien.

Distribution: Asia (Tonkin Island in Vietnam).

Note: (3) This is a synonym of *destruens* (DEB).

References: (ds) Ouchi 1935: 204; Schedl 1965a: 340. (tx) Schedl 1934c: 39, 1936g: 530, 1952c: 61, 1979c: 254. (ms) Ouchi 1935: 204.

trapezicollis (Schedl) 1971c: 385 (*Xyleborus*). Holotype ♀; Malaya, Kelantan; BMNH, London.

Distribution: Asia (Malaya).

References: (tx) Schedl 1971c: 385–386.

tristis (Eggers) 1930d: 194 (*Xyleborus*). Holotype ♀; Nakachori, Sibsagar, Assam; FRI, Dehra Dun. Distribution: Asia (Assam, Bengal in India).

Hosts: *Sapium eugeniaefolium*, *Sterculia colorata*, *Vatica lanceaefolia*.

References: (cn) Mathur & Singh 1961b: 71. (ds) Beeson 1930: 262, 1961: 310; Kleine 1934a: 175; Mathur & Singh 1961b: 71. (tx) Beeson 1930: 262; Eggers 1930d: 194.

tumidus (Schedl) 1975f: 371 (*Xyleborus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe Dist., New Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1975f: 371, 1979c: 258.

validus (Eichhoff) 1875: 202 (*Xyleborus*). Syntypes ♀; Japan; IRSNB, Brussels.

Figures: Nakane et al. 1963: 384, Nobuchi 1966d: pl. 5, 1978a: pl. 3.

Distribution: Asia (Bonin Islands/ Burma/ Anhui, Fujian, Yunnan in China/ Japan/ Korea/ Malaya/ Ryukyu Islands/ Vietnam), North America (introduced into: Maryland, New York, Pennsylvania in USA), Philippine Islands.

Hosts: *Abies firma*, *Acer* spp., *Aphananthe aspera*, *Carpinus tshonoskii*, *Castanea crenata*, *Celtis sinensis*, *Chamaecyparis obtusa*, *Cleyera japon-*

ica, *Cryptomeria japonica*, *Cunninghamia lanceolata*, *Dalbergia hupeana*, *Fagus multi-nervis*, *Juglans* spp., *Machilus* sp., *Magnolia obovata*, *Mallotus japonicus*, *Phellodendron amurense*, *Pinus densiflora*, *P. massoniana*, *parviflora*, *P. taiwanensis*, *P. thunbergii*, *Populus deltoides*, *P. glandulosa*, *Prunus serrulata spontanea*, *Quercus grosseserrata*, *Tilia amurensis*, *Tsuga sieboldii*, *Ulmus pumila*, *Zelkova serrata*.

References: (cn) Anonymous 1976a, 1976e, 1977q, 1977r, 1979p, 1980g; Inouye 1949a: 14, 113, 1949c, 1955; MacNay 1945: 108; Murayama 1954a: 10; Nitto 1953: 302; Shiraki 1952; Uchida et al. 1958: 181; Wood, S. L. 1977a: 73; Yasunga 1962: 197–200. (ec) Banno, Mikata, & Kodama 1983: 445; Inouye et al. 1955: 110. (hb) Inouye et al. 1955: 110. (ds) Anonymous 1976a, 1976e, 1977q, 1977r, 1979p, 1980g; Atkinson et al. 1991: 160; Blandford 1894c: 579; Chapin & Oliver 1986; Cho 1957; Choo 1983: 111; Choo & Woo 1985: 166; Choo, Woo, & Nobuchi 1988a: 134; Drooz 1985: 374; Hagedorn 1910d: 112; Kleine 1913b: 163, 1914b: 260, 279, 281, 1934a: 175; Ko 1969: 287; Kono 1938b: 65, 72; MacNay 1956: 108; Miwa 1931: 269; Murayama 1936a: 136, 1937b: 372, 1948: 2, 1949a: 13, 1949c: 104, 1951a: 6, 1951c: 5, 1953a: 23, 1953c: 145, 1954a: 10, 1954b: 184, 1955: 100, 102, 1957a: 37; Nakane et al. 1963: 384; Nobuchi 1966d: 32, 1967: 24, 1978a: 32, 1985c: 28; Nobuchi & Ono 1973: 183; Nohira & Ogawa 1986; Schedl 1959a: 499, 1966g: 33, 1975a; Shiraki 1952; Straby 1972: 8; Wood, S. L. 1977a: 73, 1980b: 353. (tx) Blandford 1894d: 102, 108; Choo 1983: 111; Eggers 1923a: 197–199, 1925: 153, 1935c: 310; Eichhoff 1875: 202, 1877a: 124, 1878b: 358; Hagedorn 1910a: 157; Hopkins 1915b: 54; Murayama 1934c: 300, 1936a: 136–137, 1937b: 372, 1953a: 23, 1954b: 184, 1955: 100, 102–103; Nakane et al. 1963: 384; Niisima 1909: 158, 1910a: 13; Nobuchi 1966d: 32, pl. 5, 1978a: pl. 3, 1983: 304; Schedl 1934f: 1646, 1950g: 893, 1953e: 22, 1955d: 273, 1959a: 499; Stroh-meyer 1912d: 38–39; Wylie & Yule 1977.

velatus (Sampson) 1913: 443 (*Xyleborus*). Holotype ♀; Tharrawaddy, L. Burma; BMNH, London.

Figures: Kumar & Chandra 1977: 39 (male), Nobuchi 1978a: pl. 3.

Distribution: Asia (Burma/ Xizang [Tibet] in China/ Andaman Islands, Assam, Bengal, Uttar Pradesh in India).

Hosts: *Acer campbellii*, *Casearia glomerata*, *Eurya japonica*, *Gmelina arborea*, *Leucoscepttrum canum*, *Macaranga denticulata*, *Machilus odoratissima*, *Quercus glauca*, *Tectona grandis*, *Terminalia myriocarpus*, *Thunbergia grandiflora*, *Xylia dolabriformis*.

Notes: (3) Schedl 1970b: 364 (described male).

References: (cn) Mathur & Singh 1961b: 14;

Stebbing 1914: 597. (**cc**) Batra 1963b: 217; Norris 1979; Stebbing 1914: 597. (**hb**) Stebbing 1914: 597. (**ds**) Beeson 1915: 8–11, 1930: 262, 1961: 310; Kleine 1934a: 175; Mackenzie 1922: 1–14; Mathur & Singh 1961b: 14; Nobuchi 1978a: 31. (**tx**) Beeson 1930: 262; Eggers 1925: 159; Nobuchi 1978a: pl. 3; Numberg 1959a: 443; Sampson 1913: 443–444; Schedl 1951k: 152, 1970b: 364, 1979c: 265; Stebbing 1914: 597.

assamensis Eggers 1930d: 195 (*Xyleborus*). Holotype ♀; Assam: Shillong, Haflong (Cachar); FRI, Dehra Dun, preoccupied by Stebbing 1909. Synonymy: Wood 1989: 173.

References: (**cn**) Mathur & Singh 1960b: 17, 1961b: 34; Roonwal 1954: 30. (**ds**) Bhasin, Roonwal, & Singh 1958; Kleine 1934a: 172; Mathur & Singh 1960b: 17, 1961b: 34; Roonwal 1954: 30. (**tx**) Beeson 1930: 51; Eggers 1930d: 195–196, 1934b: 27; Schedl 1979c: 29; Wood, S. L. 1989: 173.

asperipennis Eggers 1934b: 27 (*Xyleborus*). Holotype ♀; Assam: Shillong, Haflong (Cachar); FRI, Dehra Dun, automatic. Synonymy: Wood 1989: 173.

References: (**cn**) Mathur & Singh 1960b: 17, 1961b: 34. (**ds**) Beeson 1961: 302; Bhasin, Roonwal, & Singh 1958; Mathur & Singh 1960b: 17, 1961b: 34; Schedl 1969c: 52. (**tx**) Eggers 1934b: 27; Kumar & Chandra 1977: 32, 39; Schedl 1979c: 29; Wood, S. L. 1989: 173.

voarotrae (Schedl) 1961e: 146 (*Xyleborus*). Holotype ♀; Madagascar, Ambila; IRSM, Madagascar. Distribution: Madagascar.

References: (**tx**) Schedl 1961e: 146, 1977b: 145, 1979c: 268.

wallacei (Blandford) 1896b: 220 (*Xyleborus*). Holotype ♀; New Guinea, Dorey; BMNH, London.

Distribution: Asia (Assam, Bengal in India/ Malaya/ Vietnam), Australia (Queensland), Bismarck Islands, Indonesia (Borneo, Mentawai, Sumatra), New Guinea.

Hosts: *Amoora walichii*, *Artocarpus lakoocha*, *Beilschmiedia sikkimensis*, *Casuarina glomerata*, *Leucoscepttrum canum*, *Macaranga denticulata*, *Pterocymbium beccarii*, *Sapium eugeniaefolium*, *Sterculia colorata*, *Symplocos theaeifolia*.

Notes: (1) Hopkins 1915b: 55 (to *Euwallacea*).

References: (**ds**) Browne 1966: 248, 1980a: 372; Hagedorn 1910d: 112; Kleine 1913b: 163, 1914b: 296; Ohno et al. 1988a: 94, 1989: 64; Schedl 1936g: 528, 1971c: 369, 1971f: 150, 1974c: 262. (**tx**) Blandford 1896b: 220; Hagedorn 1910a: 157; Hopkins 1915b: 55; Numberg 1959a: 444; Schedl 1936g: 528, 1940b: 434–435, 1942a: 194, 1952k: 162, 1955b: 281.

siporani Hagedorn 1910b: 11 (*Xyleborus*).

Lectotype ♀; Sipora in Mentawai; USNM,

Washington, designated by Anderson & Anderson 1971: 30. Synonymy: Wood 1989: 173.

References: (**ds**) Hagedorn 1910d: 111; Kleine 1913b: 163, 1914b: 268. (**tx**) Anderson, W. H. & Anderson 1971: 30; Eggers 1923a: 200, 1925: 159; Hagedorn 1910a: 156, 1910b: 11; Schedl 1951i: 91; Wood, S. L. 1989: 173.

confinis Eggers 1923a: 200 (*Xyleborus*). Lectotype ♀; Moroka (Sudost-Neu Guinea); Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 61–62. Synonymy: Wood 1989: 173.

References: (**tx**) Eggers 1923a: 200; Schedl 1950f: 52, 1979c: 61; Wood, S. L. 1989: 173.

ovalicollis Eggers 1930d: 193 (*Xyleborus*). Holotype ♀; Assam, Upper Dihing Reserve, Lakhimpur; FRI, Dehra Dun. Synonymy: Wood 1989: 173

References: (**cn**) Mathur & Singh 1961a: 84; Roonwal 1954: 89. (**ds**) Beeson 1930: 252, 1961: 308; Bhasin, Roonwal, & Singh 1958; Kleine 1934a: 175; Mathur & Singh 1961a: 84; Roonwal 1954: 89. (**tx**) Beeson 1930: 252; Eggers 1930d: 193–194; Schedl 1979c: 181; Wood, S. L. 1989: 173.

perakensis Schedl 1942a: 194 (*Xyleborus*). Lectotype ♀; Malaya, Perak, Trolak F. R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 188. Synonymy: Wood 1989: 173.

References: (**ds**) Browne 1961c: 133; Schedl 1964c: 304, 1964g: 242, 1965g: 24. (**tx**) Schedl 1942a: 194, 1954c: 154, 1964g: 242, 1965f: 24, 1979c: 188; Wood, S. L. 1989: 173.

wallacei indocorus Schedl 1979a: 162 (*Xyleborus*). Holotype ♀; Queensland, Australia; CSIRO, Canberra [There may be another holotype in Schedl Collection in NHMW, Wien].

References: (**tx**) Schedl 1979a: 162.

xanthopus (Eichhoff) 1868c: 151 (*Xyleborus*). Holotype ♀; Africa (Cap bonae spei); Hamburg Museum, lost.

Figures: Numberg 1963b: pl. 31, figs. 4–7, Schedl 1962j: 212, 1977b: 145.

Distribution: Africa (Ivory Coast/ Kenya/ Natal/ Nigeria/ South Africa/ Tanzania/ Uganda/ Zaire), Asia (Burma/ Assam, Tamil Nadu in India/ Malaya/ Sri Lanka), Fiji Islands, Indonesia (Borneo, Java, Mentawai, Sumatra), Madagascar, Philippine Islands (Luzon, Mindanao).

Hosts: Schedl 1962j: 212–219 lists 73 host species for Africa. *Antidesma petiolare*, *Arthrophyllum diversifolium*, *Artocarpus integrifolia*, *A. scor-techini*, *Canarium* sp., *Cussonia chartacea*, *C. vantsilana*, *Delonix regia*, *Dombeya* sp., *Dyera costulata*, *Eugenia* sp., *Fanchera* sp., *Ficus soroceoides* var. *macrophlebia*, *F. sp.*, *Gouania glandulosa*, *Hibiscus macrophyllus*, *Maesa lanceolata*, *Mangifera indica*, *Pachytrape dinep-*

ate, *Pittosporum* sp., *Rauvolfia caffra*, *Rawensara* sp., *Shorea leprosula*, *Sterculia macrophylla*, *Symphonia globulifera*, *Trema orientalis*, *Whitfordiodendron pubescens*.

Notes: (3) The *xanthopus* of Schedl is a shining example of *semirudis*; in general, African specimens are shining, whereas most Asian specimens have the elytral declivity partly or entirely dull. However, they probably represent the same species. Dejean 1837: 382 (used *xanthopus* as a nomen nudum in *Bostrichius*), Eggers 1920: 124, 1922: 174, Schedl 1962j: 212 (*siginis* Hagedorn, nomen nudum, synonymy). It is probable that *Xyleborus semipolitus* Schedl is a synonym (SLW). References: (ay) Van Ryn-Tournel 1972. (cn) Anonymous 1892: 165, 1970c: 14; Hall 1921: 11–12; Morstatt 1914: 312; Plenet 1965; Speyer 1923: 21; Vuillaume et al. 1981: 348. (cc) Roberts 1977a: 268; Schedl 1962j: 212; Vuillaume et al. 1981: 348. (hb) Kalshoven 1920: 32, 1958a: 147, 192, 1959c: 140; Paulian 1951: 28; Roberts 1977a: 268; Schedl 1962j: 212, 1977a: 146. (ds) Anonymous 1970c: 14; Beaver & Loytyniemi 1989; Browne 1973a: 282, 1974a: 65; Dejean 1837: 382; Fairmaire 1892b; Gardner 1957: 33; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 112; Kalshoven 1958a: 147, 192, 1959c: 140; Kleine 1913b: 163; Nunberg 1961a: 331; Paulian 1951: 28; Roberts 1977a: 268; Schedl 1959a: 497, 1962h: 61, 1962j: 212, 1962k: 1105, 1964e: 69, 1965h: 112, 1966b: 76, 1969c: 55, 1975k: 278, 1977a: 146, 1982: 279; Spahr 1981: 62; Wichmann 1954: 522. (tx) Beaver & Loytyniemi 1989; Blandford 1896: 213; Eggers 1920: 116–117, 124, 1922: 174, 1923a: 187, 1943c: 66; Eichhoff 1868c: 151, 1878b: 326–327, 477; Fairmaire 1892b; Hagedorn 1910a: 157, 1910b: 8, 1913b: 257; Nobuchi 1983: 304; Nunberg 1961: 331, 1963b: 62, pl. 31; Powell, W. 1980: 29; Schaufuss 1891: 24, 1897: 212; Schedl 1939a: 468, 1941d: 402, 1950c: 205, 1950d: 8, 1951j: 19, 1953d: 70, 1957b: 151, 1957d: 16, 84, 1958k: 150, 1959a: 497, 1961e: 128, 1962b: 61, 1962j: 212–213, 1962k: 1105, 1964e: 69, 1965h: 112, 1977b: 145, 146.

semirudis Blandford 1896b: 210 (*Xyleborus*). Holotype ♀; Borneo; BMNH, London. Synonymy: Wood 1989: 173.

References: (hb) Browne 1961c: 127; Kalshoven 1959c: 138–139. (ds) Browne 1961c: 127; Hagedorn 1910d: 110; Kalshoven 1959c: 138–139; Kleine 1913b: 162, 1914b: 284. (tx) Blandford 1896b: 210; Eggers 1927c: 90; Hagedorn 1910a: 156; Schedl 1931c: 340, 1960h: 108; Wood, S. L. 1989: 173.

fraternus Blandford 1896b: 212 (*Xyleborus*). Holotype ♀; Ceylon; BMNH, London. Synonymy: Schedl 1958k: 150.

References: (cn) Mathur & Singh 1960b: 48, 1961a: 70, 1961b: 91. (ds) Hagedorn 1910d: 104; Kleine 1913b: 161, 1934a: 173; Mathur &

Singh 1960b: 48, 1961a: 70, 1961b: 91. (tx) Beeson 1915: 212; Blandford 1896b: 212; Eggers 1923a: 186; Hagedorn 1910a: 15; Schedl 1958k: 150, 1962j: 212.

sereinuus Eggers 1923a: 187 (*Xyleborus*). Lectotype ♀; Insel Mentawai (Sereinu, Si Oban); Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 225. Synonymy: Kalshoven 1959c: 139, Schedl 1960i: 108.

References: (ds) Beeson 1961: 308; Kalshoven 1959c: 139; Kleine 1934a: 173; Schedl 1936d: 5. (tx) Eggers 1923a: 187; Kalshoven 1959c: 139; Nunberg 1959a: 437; Schedl 1936d: 5, 1951i: 42, 1954a: 142, 155, 1958k: 151, 1960i: 108, 1979c: 225.

dubius Eggers 1923a: 199 (*Xyleborus*). Lectotype ♀; Niederl. Indien. Tjitjalangka (Java); Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 85. Synonymy: Kalshoven 1959c: 139, Schedl 1960i: 108.

References: (tx) Eggers 1923a: 199–200, 1927b: 390; Kalshoven 1959c: 139; Nunberg 1956d: 209, 1959a: 430; Schedl 1951i: 65, 1958k: 151, 1960i: 108–109, 1979c: 85.

hybridus Eggers 1927c: 90 (*Xyleborus*). Lectotype ♀; Philippinen: Mindanao, Prov. Lanao, Momungan; USNM, Washington, designated by Anderson & Anderson 1971: 14. Synonymy: Kalshoven 1959c: 139.

References: (ds) Schedl 1936j: 20, 1938s: 426, 1966b: 56, 1971f: 149. (tx) Anderson, W. H. & Anderson 1971: 14; Eggers 1927c: 90; Kalshoven 1959c: 139; Nobuchi 1983: 302; Nunberg 1959a: 428; Schedl 1931c: 340–341, 1933e: 103–105, 1936j: 20, 1938g: 426, 1942a: 188, 1951i: 66–67, 1954a: 141, 1958k: 151, 1960h: 108, 1979c: 120.

rudis Eggers 1930d: 192 (*Xyleborus*). Holotype ♀; Madras (Nilambur); FRI, Dehra Dun. Synonymy: Wood 1989: 173.

References: (cn) Roonwal 1954: 87. (ds) Beeson 1930: 255, 1961: 308; Browne 1961c: 127; Kleine 1934a: 175; Roonwal 1954: 87; Schedl 1936j: 20, 1959a: 494, 1972g: 225. (tx) Beeson 1930: 255; Eggers 1930d: 192–193; Schedl 1936d: 20, 1959a: 494, 1979c: 214; Wood, S. L. 1989: 173.

kivuensis Eggers 1935c: 309 (*Xyleborus*). Holotype ♀; Congostaat (Kivu Mulungu); MRCB, Tervuren. Synonymy: Schedl 1957d: 16.

Notes: (3) Schedl 1952j: 3, 11 (described male).

References: (ds) Gardner 1957a; Mayne & Donis 1962: 319. (tx) Eggers 1935c: 309–310, 1943c: 66; Schedl 1950c: 205, 1950d: 8, 1952j: 3, 10–11, 1953d: 69, 1957d: 16, 1958k: 150, 1959a: 497, 1962j: 212, 1979c: 133.

interruptus Eggers 1940d: 139 (*Xyleborus*). Holotype ♀; Java (Batoerraden, G. Slamet);

Drescher Collection. Synonymy: Kalshoven 1959c: 139.

References: (ay) Browne 1961d: 49. (cn) Anonymous 1977a, 1977j, 1978v; Chandra 1981; Mathur & Singh 1960b: 6, 1961a: 10, 1961b: 14; Williams, L. H. & La Fage 1979: 426. (hb) Browne 1961c: 124; Chandra 1981. (ds) Anonymous 1977a, 1977j, 1978v; Browne 1961c: 124; Mathew 1982; Mathur & Singh 1960b: 6, 1961a: 10, 1961b: 14; Samuelson 1981: 77; Schedl 1960e: 172, 1961e: 71, 1962b: 185; Yin & Huang 1981: 568. (tx) Eggers 1940d: 139–140; Kalshoven 1959c: 139; Schedl 1951i: 70, 1958k: 151, 1979c: 127.

neolybridus Schedl 1942a: 188 (*Xyleborus*). Syn-types ♀; Malaya, Selangor, Kepong; BMNH, London and Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 173.

Notes: (1) Schedl 1979c: 164 (citation of holotype invalid).

References: (ds) Browne 1961c: 128. (tx) Schedl 1942a: 188, 1951i: 62, 1979c: 164; Wood, S. L. 1989: 173.

archybridus Schedl 1951i: 66 (*Xyleborus*). Syn-types ♂ ♀; Philippinen, Luzon, Laguna, Mt. Makiling; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 173.

Notes: (1) Schedl 1979c: 27 (citation of holotype invalid).

References: (ds) Schedl 1966b: 47. (tx) Nobuchi 1983: 302; Schedl 1951i: 66, 1979c: 27; Wood, S. L. 1989: 173.

longehirtus Nunberg 1956: 209 (*Xyleborus*). Syn-types 2 ♀; Niederl. Inden. Tjitjalangka (Java); MNB, Berlin, automatic. Synonymy: Kalshoven 1959c: 139; Schedl 1960h: 108.

References: (tx) Kalshoven 1959c: 139; Nunberg 1956: 209, 1959a: 430; Schedl 1960h: 108–109.

zicsii (Schedl) 1967e: 231 (*Xyleborus*). Holotype ♀; Brazzaville, Orstom Park; NHMB, Budapest.

Distribution: Africa (Congo).

References: (tx) Schedl 1967e: 231–232, 1979c: 270.

Genus *Cyclorhipidion* Hagedorn

CYCLORHIPIDION HAGEDORN 1912c: 355. Type-species: *Cyclorhipidion pelliculosus*, Hagedorn, monobasie.

Terminalinus Hopkins 1915b: 10, 57. Type-species: *Terminalinus terminaliae* Hopkins, original designation. Synonymy: Wood 1992:(in press).

References: (tx) Hopkins 1915b: 10, 57; Schedl 1952k: 162; Wood, S. L. 1986a: 83, 1992:(in press).

Kelantaninus Nunberg 1961b: 621. Type-species: *Xyleborus punctatopilosus* Schedl, original designation. Synonymy: Wood 1986a: 83.

References: (tx) Nunberg 1961b: 621; Wood, S. L. 1986a: 83.

References: (tx) Hagedorn 1912c: 355; Schedl 1957d: 15.

agnaticeps (Schedl) 1957d: 100 (*Xyleborus*). Holotype ♀; Congo Belge: Kivu, Hembe-Bitale, Mt. Kahuzi; Lubero, Ruanda: Sishwati, Ostafrika: Mt. Elgon; MRCB, Tervuren.

Figures: Nunberg 1963b:pl. 3–4, figs. 7–10, Schedl 1962j: 294.

Distribution: Africa (Kenya/ Tanzania/ Zaïre).

Hosts: *Alchornea cordifolia*, *Bailonella toxisperma*, *Beilschmiedia louisii*, *Bridelia bridelifolia*, *Hagenia abyssinica*, *Hypericum lanceolatum*, *Olea hochstetteri*.

References: (cc) Schedl 1958d: 192. (hb) Schedl 1962j: 293. (ds) Schedl 1962j: 293. (tx) Nunberg 1963b: 14, pl. 3–4; Schedl 1955f: 259, 1957d: 54, 100, 1962j: 293–294, 1979c: 15.

agnatum (Eggers) 1923a: 197 (*Xyleborus*). Syn-types ♀; Borneo (Sarawak) and Neu Guinea (Iatam); MCC, Genova, and Eggers Collection (USNM, Washington or NHMW, Wien?).

Figures: Nobuchi 1978a:pl. 4, Nunberg 1978: 102, Wood 1960a: 58.

Distribution: Asia (Burma/ India/ Malaya), Australia, Bismarck Islands, Indonesia (Borneo, Java), Micronesia (Caroline Islands, Palau Island), New Guinea, Philippine Islands (Luzon), Solomon Islands.

Hosts: *Balanocarpus heimii*, *Castanopsis* sp., *Dipterocarpus kunstleri*, *Dryobalanips oblongifolia*, *Eugenia* sp., *Scaphium* sp., *Shorea bracteolata*, *S. leprosula*, *S. macroptera*, *S. uliginosa*.

References: (cn) Mathur & Singh 1961a: 38. (cc) Browne 1958b: 172. (hb) Beaver & Browne 1978: 602; Browne 1958b: 172, 1961c: 149; Kalshoven 1959c: 148. (ds) Beaver & Browne 1978: 602; Beeson 1961: 302; Browne 1966: 253, 1984a: 51; Choo & Woo 1983; Kalshoven 1959c: 148; Mathur & Singh 1961a: 38; Nobuchi 1978a: 38; Nunberg 1961b: 610; Ohno, Yoneyama, & Nakazawa 1982a: 4, 1982b: 8, 1987a: 87, 1987b: 94; Ohno, Yoshioka, Uchida, Yoneyama, & Tsukamota 1989: 61; Ohno, Yoshioka, Yoneyama, & Nakazawa 1988a: 93; Schedl 1936d: 2, 1936j: 32, 1966b: 45, 1969a: 208, 1975i: 346, 1979a: 158; Wood, S. L. 1960a: 51. (tx) Browne 1972b: 23; Eggers 1923a: 197, 1927b: 408, 1940d: 140; Nobuchi 1978a:pl. 4, 1983: 302; Nunberg 1978: 102–103; Schedl 1936d: 2, 1942a: 170, 1942d: 6–7, 1950g: 895, 1954a: 140, 1958b: 498, 1959a: 508; Wood, S. L. 1960a: 51, 58.

amarantum (Schedl) 1942a: 198 (*Xyleborus*). Lectotype ♀; Malaya, Pahang, Fraser's Hill; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 17.

Distribution: Asia (Malaya).

- References: (ds) Browne 1961c: 150. (tx) Schedl 1942a: 198, 1979c: 17.
- andriani (Schedl)** 1965c: 73 (*Xyleborus*). Holotype ♀; Madagascar Sud-Ouest, Lambomakandro; IRSM, Madagascar.
Distribution: Madagascar.
References: (tx) Schedl 1965c: 73, 1977b: 139, 1979c: 19.
- anoplum (Schedl)** 1975f: 362 (*Xyleborus*). Holotype ♀; New Guinea, Upper Manki logging area, Bulolo, Morobe Distr.; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 362, 1979c: 21.
- apicipenne (Schedl)** 1974d: 462 (*Xyleborus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe Dist., New Guinea; CSIRO, Canberra.
Distribution: New Guinea.
References: (tx) Schedl 1974d: 462, 1979c: 23.
- armaticeps (Schedl)** 1942a: 198 (*Xyleborus*). Lectotype ♀; Malaya, Pahang; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 25.
Distribution: Asia (Malaya).
Hosts: *Shorea leprosula*.
References: (ds) Browne 1961c: 165. (tx) Schedl 1942a: 198, 1979c: 25.
- artifex (Schedl)** 1942d: 45 (*Xyleborus*). Lectotype ♀; Java: Mt. Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 27.
Distribution: Indonesia (Java).
References: (tx) Schedl 1942d: 45, 1979c: 27.
- bicinctum (Schedl)** 1965c: 76 (*Xyleborus*). Holotype ♀; Madagascar, Montagne d'Ambre, 1150 m; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
Hosts: *Macaranga* sp.
References: (tx) Schedl 1965c: 76, 1977b: 212, 1979c: 37–38.
- bituberculatum (Eggers)** 1923a: 183 (*Xyleborus*). Holotype ♀; Deutsch Neu-Guinea, Kaiserin Augustafluss; supposedly deposited in MNB, Berlin, but apparently it was in the Eggers Collection when Schedl borrowed it, now in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Eggers 1923a: 183–184; Schedl 1940b: 435, 1955b: 281, 1979c: 41.
- brevius (Eggers)** 1923a: 183 (*Xyleborus*). Holotype ♀; Deutsch New-Guinea, Kaiserin Augustafluss; MNB, Berlin, apparently still in the Eggers Collection when Schedl borrowed it, now in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Eggers 1923a: 183; Schedl 1953c: 302, 1979c: 46.
- cachani (Schedl)** 1958j: 241 (*Xyleborus*). Lectotype ♀; Cote d'Ivoire, Yapo; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 49.
Distribution: Africa (Ivory Coast).
Hosts: *Canarium* sp., *Macrolobium heudelotianum*, *Pachylobius deliciosa*.
References: (ds) Cachan 1957: 15; Schedl 1961m: 84, 1962j: 489, 1964c: 69. (tx) Schedl 1958j: 241, 1961m: 84, 1962j: 489, 1979c: 49.
- callosum (Schedl)** 1941d: 405. Holotype ♀; Congo; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
Hosts: *Dacryodes pubescens*.
References: (hb) Schedl 1962j: 272. (ds) Schedl 1962j: 272. (tx) Schedl 1941d: 405, 1957d: 15, 1962j: 272, 1979c: 50.
- capensis (Eggers)** 1944b: 98 (*Xyleborus*). Holotype ♀; Africa, Capland; Stuttgart Staatl. Naturaliensammlung.
Distribution: Africa (South Africa).
References: (tx) Eggers 1944b: 98; Schedl 1962j: 273.
- circumcissum (Sampson)** 1921: 30 (*Xyleborus*). Holotype ♀; Penang; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Borneo, Java, Sumatra).
Hosts: *Castanopsis* sp., *Pasania* sp., *Quercus* sp.
References: (hb) Beaver & Browne 1978: 606; Browne 1961c: 161; Kalshoven 1959c: 158. (ds) Beaver & Browne 1978: 606; Browne 1961c: 161–162, 1962c: 202, 1986a: 89; Kalshoven 1959c: 158; Sampson 1921: 30–31; Schedl 1965g: 24. (tx) Browne 1959a: 97; Kalshoven 1959b: 97; Sampson 1921: 30–31.
- obtusum (Eggers)** 1923a: 172 (*Xyleborus*). Holotype ♀; Bandar Baroe auf Sumatre; USNM, Washington. Synonymy: Browne 1959b: 97 in Kalshoven 1959.
References: (ec) Browne 1958b. (hb) Browne 1958b; Kalshoven 1959: 158. (ds) Schedl 1936d: 4, 1971c: 368. (tx) Anderson, W. H. & Anderson 1971: 23; Browne 1959a, 1959b: 97; Eggers 1923a: 172, 1927c: 100; Schedl 1936d: 4, 1942a: 192, 1942c: 185–186, 1942d: 6, 1948f: 271, 1951i: 42, 86, 1954a: 142, 1971c: 368, 1979c: 176.
- corrugatum (Schedl)** 1951i: 93 (*Xyleborus*). Holotype ♂; Java: Tangkoeban Prahoë, 4000–5000 Fuss; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java).
References: (tx) Schedl 1951i: 93, 1979c: 66.
- crucifer (Hagedorn)** 1908: 381 (*Xyleborus*). Holotype ♀; Kamerun; MNB, Berlin.
Figures: Numberg 1963b: pl. 11, figs. 3–6, Schedl 1962j: 274.
Distribution: Africa (Angola/ Benin/ Cameroon/ Equatorial Guinea/ Guinea/ Ivory Coast/ Kenya/ Nigeria/ South Africa/ Tanzania/ Uganda/ Zaire/ Zambia).
Hosts: *Acrocarpus* sp., *Albizzia* spp., *Baphia nitida*, *Cassia siamea*, *Celtis* sp., *Ficus* sp., *Turraecanthus africana*.

- References: **(cc)** Schedl 1962j: 273. **(hb)** Beaver & Loytyniemi 1985a: 70; Loytyniemi, Beaver, & Loytyniemi 1984; Roberts 1969: 131; Schedl 1962j: 273. **(ds)** Beaver & Loytyniemi 1985a: 70; Ferreira 1965: 1121; Gardner 1957a: 33; Hagedorn 1910d: 101; Kleine 1913b: 160, 1914b: 312; Mayne 1954: 296; Mayne & Donis 1962: 318; Schedl 1959p: 19, 1962j: 273, 1967e: 216. **(tx)** Beaver & Loytyniemi 1985a: 70; Eggers 1923a: 179, 188, 1927a: 199; Hagedorn 1908: 381, 1910a: 153; Nunberg 1963b: 26, pl. 11; Schedl 1939a: 470, 1939g: 170, 1942d: 34–35, 1950d: 8, 1952i: 18, 1955i: 219, 1957d: 15, 84, 98, 1962j: 273–274, 1979c: 70.
- crucifer cruciferinus* Schedl 1957d: 98 (*Xyleborus*). Holotype ♀; Cote d'Ivoire: Adiopodoume; Schedl Collection in NHMW, Wien. Notes: (1) A possible subspecies. References: **(ds)** Schedl 1962j: 275. **(tx)** Schedl 1957d: 98, 1962j: 275, 1962k: 1099, 1979c: 70.
- cruciforme* (Schedl) 1957d: 99 (*Xyleborus*). Holotype ♀; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren. Figures: Nunberg 1963b: pl. 11, figs. 7–8. Distribution: Africa (Zaire). Hosts: *Faurea saligna* and a liana. References: **(cc)** Schedl 1958d: 192. **(hb)** Schedl 1962j: 276. **(ds)** Schedl 1962j: 276. **(tx)** Nunberg 1963b: 27, pl. 11; Schedl 1957d: 98–99, 1962j: 276, 1979c: 70.
- crucipenne* (Schedl) 1962j: 277 (*Xyleborus*). Holotype ♀; Congo Belge: Luki; Schedl Collection in NHMW, Wien. Distribution: Africa (Kenya/ Uganda/ Zaire). Hosts: *Albizia* sp., *Alstonia boonei*, *Cynometra alexandri*, *Celtis mildbraedii*, *C. sp.*, *Chlorophora excelsa*, *Funtumia elastica*, *Khaya* sp., *Maesopsis eminii*, *Trema guineensis*. References: **(tx)** Schedl 1962j: 277, 1979c: 71.
- metacrucifer* Browne 1965a: 201 (*Xyleborus*). Holotype ♀; Kenya: Budongo; BMNH, London. Synonymy: Wood 1989: 175. References: **(ds)** Browne 1973a: 279, 297. **(tx)** Browne 1965a: 201, 1973a: 279, 297.
- curvipenne* (Schedl) 1951i: 82 (*Xyleborus*). Syn-types ♀; Java, Batoerraden, G. Slamet; Schedl Collection in NHMW, Wien. Distribution: Indonesia (Java). References: **(tx)** Schedl 1951i: 82, 1979c: 73.
- daosi* (Schedl) 1958j: 242 (*Xyleborus*). Lectotype ♀; Cote d'Ivoire, Banco; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 75. Distribution: Africa (Equatorial Guinea/ Ivory Coast). Hosts: *Trichoscypha arborea*. References: **(ds)** Cachan 1957: 15, 43–53; Schedl 1962j: 492, 1971g: 193. **(tx)** Schedl 1958j: 241–242, 1962j: 492, 1979c: 75.
- delicatum* (Schedl) 1955b: 300 (*Xyleborus*). Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: **(tx)** Schedl 1955b: 281, 300, 1979c: 77.
- destriatum* (Schedl) 1939e: 352 (*Xyleborus*). Lectotype ♀; Malaya, Pahang; Fraser's Hill, 4200 feet; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 79. Distribution: Asia (Malaya). References: **(ds)** Browne 1961c: 164. **(tx)** Schedl 1939e: 351–353, 1979c: 79.
- dihingicum* Wood 1992b: 79. Syntypes 2 ♀, 1 ♂; Java, Batoerraden, G. Slamet; Schedl Collection in NHMW, Wien, automatic. Distribution: Indonesia (Java). References: **(tx)** Wood 1992b: 79.
- dihingensis* Schedl 1951i: 75 (*Xyleborus*). Syn-types 2 ♀, 1 ♂; Java, Batoerraden, G. Slamet; Schedl Collection in NHMW, Wien, preoccupied by Eggers 1930. References: **(ds)** Schedl 1966b: 51. **(tx)** Nobuchi 1983: 302; Schedl 1951i: 75, 1979c: 80; Wood, S. L. 1992b: 79.
- diptercarpi* (Hopkins) 1915b: 58 (*Terminalus*). Holotype ♀; Paghilao, Philippine Islands; USNM, Washington. Distribution: Philippine Islands. Hosts: *Diptercarpus grandiflorus*. References: **(ds)** Kleine 1934a: 178; Schedl 1966b: 51. **(tx)** Hopkins 1915b: 58; Nobuchi 1983: 302.
- foersteri* (Hagedorn) 1910b: 7 (*Xyleborus*). Syn-types 2 ♀; Sumatra; Hamburg Museum, lost. Distribution: Asia (Malaya), Indonesia (Borneo, Sumatra). Hosts: *Canarium littorale*, *C. sp.*, *Canthium didymum*, *Pithecolobium bubalinum*, *Santiria griffithii*, *Shorea leprosula*. References: **(cc)** Browne 1958b. **(hb)** Browne 1935a, 1958b, 1961c: 163. **(ds)** Beeson 1961: 304; Browne 1935a, 1961c: 163; Hagedorn 1910d: 104; Kleine 1913b: 161, 1914b: 286; Schedl 1936d: 3. **(tx)** Browne 1955: 353; Eggers 1923a: 182, 1927c: 93; Hagedorn 1910a: 154, 1910b: 7; Schedl 1936d: 3, 1939e: 331, 351, 1942a: 170, 1942c: 186, 1950g: 894.
- fouqueti* (Schedl) 1937f: 15 (reprint p. 1) (*Xyleborus*). Lectotype ♀; Saigon; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 99. Distribution: Asia (Vietnam). References: **(ds)** Schedl 1937f: 15. **(tx)** Schedl 1937f: 15, 1979c: 99.
- guineense* (Eggers) 1941d: 179 (*Xyleborus*). Syn-types ♂ ♀; Insel Fernando Poo; IPKE, Eberswalde, and 3 ♀ 1 ♂ in Eggers Collection, in NHMW, Wien. Figures: Schedl 1962j: 322.

- Distribution: Africa (Cameroon/ Equatorial Guinea/ Fernando Po Island).
 Hosts: *Nuxia conferta*, *Sizygium staudtii*.
 References: (ds) Browne 1973a: 282. (tx) Eggers 1941d: 179; Schedl 1962j: 322–323, 1979c: 114.
- hastatum (Schedl)** 1942d: 39 (*Xyleborus*). Lectotype ♀; Java, Batoerraden, G. Slamet; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 115.
 Distribution: Indonesia (Java), New Guinea.
 References: (ds) Browne 1983a: 554; Schedl 1965g: 25. (tx) Schedl 1942d: 39, 1951i: 93, 1953c: 290, 1958k: 154, 1965g: 25, 1979c: 115.
- hirtum (Hagedorn)** 1904d: 126 (*Xyleborus*). Holotype ♀; Darjiling; MNHN, Paris.
 Distribution: Asia (Burma/ Fujian in China/ Assam, Bengal in India).
 Hosts: *Beilschmiedea sikkimensis*, *Evodia fraxinifolia*, *Michelia champaca*, *Symplocos theaeifolia*.
 References: (ds) Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 277; Schedl 1969c: 53. (tx) Beeson 1930: 218; Hagedorn 1904d: 126, 1910a: 154.
- hirtuosus** Beeson 1930: 217 (*Xyleborus*). Syn-types 11 ♀; Bengal: Lopchu, Rangirum, Senchal Range, Darjeeling; FRI, Dehra Dun. Synonymy: Wood 1989: 175.
 References: (cn) Mathur & Singh 1961a: 84. (ds) Mathur & Singh 1961a: 84; Nobuchi 1967: 21; Schedl 1960e: 172. (tx) Beeson 1930: 217–218; Eggers 1939c: 114; Schedl 1953e: 22, 1955h: 45, 1979c: 118; Wood, S. L. 1989: 175.
- indigens (Schedl)** 1955b: 303 (*Xyleborus*). Holotype ♀; Deutsch-Neu-Guinea; Schedl Collection in NHMW, Wien.
 Distribution: New Guinea.
 References: (tx) Schedl 1955b: 281, 303, 1979c: 124.
- kelantanum (Schedl)** 1953c: 302 (*Xyleborus*). Lectotype ♀; Malaya, Kelantan; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 131.
 Distribution: Asia (Malaya).
 Hosts: *Shorea rugosa*.
 Notes: (1) Browne 1961c: 149 (correction of lapsus calami in original spelling).
 References: (hb) Browne 1961c: 149. (ds) Browne 1961c: 149; Nunberg 1961b: 610. (tx) Schedl 1953c: 302, 1979c: 131.
- longius (Eggers)** 1923a: 171 (*Xyleborus*). Lectotype ♀; Deutsch Neu Guinea (Maifluss and Augustafluss); USNM, Washington, designated by Anderson & Anderson 1971: 18.
 Distribution: New Guinea.
 References: (tx) Anderson, W. H. & Anderson 1971: 18; Eggers 1923a: 171–172, 195; Schedl 1942c: 190, 1961f: 92, 1979c: 141.
- mangoense (Schedl)** 1942a: 189 (*Xyleborus*). Holotype ♀; Malaya, Malacca; BMNH, London.
- Distribution: Asia (Malaya).
 Hosts: *Mangifera indica*.
 References: (ds) Browne 1961c: 137. (tx) Schedl 1939n: 14, 1942a: 189.
- multigranosum (Schedl)** 1964f: 622 (*Xyleborus*). Holotype ♀; Cameroun, N'Kongsamba; MNHN, Paris.
 Distribution: Africa (Cameroon).
 References: (tx) Schedl 1964f: 622, 1979c: 161.
- neocavipenne (Schedl)** 1977f: 503 (*Xyleborus*). Holotype ♀; Vietnam: Prov. Ha-Tinh, forestiere Huong-son, 150 m; Schedl Collection in NHMW, Wien.
 Distribution: Asia (Vietnam).
 References: (tx) Schedl 1977f: 503.
- neocrucifer (Schedl)** 1955i: 219 (*Xyleborus*). Lectotype ♀; S. Rhodesia: Salisbury, Mashonaland, Victoria, N. W. Rhodesia: Shigariatombwes; Schedl Collection, designated by Schedl 1979c: 164.
 Figures: Nunberg 1968a: pl. 2, figs. 1–4.
 Distribution: Africa (South Africa/ Zambia/ Zimbabwe).
 Notes: (3) Beaver & Loytyniemi 1985a: 71 (cited in *Kelantanus*).
 References: (ds) Beaver & Loytyniemi 1985a: 71; Schedl 1962j: 279. (tx) Beaver & Loytyniemi 1985a: 71; Nunberg 1968a: 274, pl. 2; Schedl 1955d: 272, 1955i: 219, 1962j: 277–279, 1979c: 164.
- nsafukalae (Schedl)** 1957d: 105 (*Xyleborus*). Holotype ♀; Congo Belge: Bas-Congo, Luki; MRCB, Tervuren.
 Distribution: Africa (Zaire).
 Hosts: *Dacryodes pubescens*.
 References: (ds) Schedl 1962j: 526. (tx) Schedl 1957d: 105, 1962j: 526, 1979c: 172.
- nutans (Schedl)** 1942a: 199 (*Xyleborus*). Lectotype ♀; Malaya, Pahang, Kemasul F.R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 173.
 Distribution: Asia (Andaman Islands in India/ Malaya), Indonesia (Borneo).
 Hosts: Burceraceae.
 References: (ds) Browne 1961a: 305, 1961c: 149, 1981b: 599, 1983a: 554, 1984a: 151; Schedl 1969c: 53. (tx) Schedl 1942a: 199, 1959a: 507, 1979c: 173.
- obliqueseptum (Eggers)** 1927c: 99 (*Xyleborus*). Holotype ♀; Philippinen: Mindanao, Prov. Lanao, Kolambungan; Eggers Collection, in NHMW, Wien.
 Distribution: Philippine Islands.
 References: (ds) Nobuchi 1978a: 24; Ohno, Yoneyama, & Nakazawa 1987: 88; Schedl 1938g: 427, 1966b: 62, 1966g: 32. (tx) Eggers 1927c: 99; Nobuchi 1983: 303; Schedl 1938g: 427, 1950g: 894, 1979c: 174.
- opimatum (Schedl)** 1975a: 459 (*Xyleborus*). Holotype ♀; Borneo; Schedl Collection in NHMW, Wien.
 Distribution: Indonesia (Borneo).

- References: (tx) Schedl 1975a: 459, 1979c: 180.
- pelliculosum** Hagedorn 1912c: 356. Holotype ♀; Kamerun, Johann-Albrechtshöhe; MNB, Berlin. Distribution: Africa (Cameroon). References: (ds) Hagedorn 1910d: 108; Kleine 1913b: 170, 1914b: 312. (tx) Hagedorn 1910a: 155, 1912c: 356; Hopkins 1914: 120; Schedl 1941d: 405, 1957d: 15, 1962j: 279.
- perlactus** Schedl 1960h: 107 (*Xyleborus*). Holotype ♀; Kamerun, Johann-Albrechtshöhe; MNB, Berlin, automatic. An unnecessary replacement name for *pelliculosum* Hagedorn, the original pre-1960 name is restored. References: (tx) Schedl 1960h: 107, 1962j: 279.
- perpilosellum** (Schedl) 1935b: 402 (*Xyleborus*). Lectotype ♀; Mt. Maquilang, Laguna Province, Luzon, Philippine Islands; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 190. Distribution: Asia (Malaya), Philippine Islands (Luzon). References: (ds) Nunberg 1961b: 611; Schedl 1966b: 65. (tx) Nobuchi 1983: 303; Schedl 1935b: 402, 1979c: 190.
- pilipenne** (Eggers) 1940d: 140 (*Xyleborus*). Holotype ♀; Java (Preanger, G. Tangkoeban Prahoë); Drescher Collection. Distribution: Indonesia (Java). Notes: (1) Schedl 1979c: 140 (lectotype designated invalid). References: (tx) Eggers 1940d: 140; Schedl 1942d: 45, 1979c: 194.
- pilosulum** (Eggers) 1927c: 100 (*Xyleborus*). Holotype ♀; Philippinen: Luzon, Provinz Laguna, Mount Maquilang; USNM, Washington. Distribution: Indonesia (Borneo), Philippine Islands (Luzon). References: (ds) Schedl 1965g: 24, 1966b: 65, 1979c: 194. (tx) Anderson, W. H. & Anderson 1971: 26; Eggers 1927c: 100–101; Nobuchi 1983: 303; Schedl 1948f: 271, 1965g: 24, 1979c: 194.
- pityogenes** (Schedl) 1936g: 534 (*Xyleborus*). Holotype ♀; Australia; Schedl Collection in NHMW, Wien. Distribution: Australia. References: (ds) Brimblecombe 1953: 33; Schedl 1936g: 534. (tx) Schedl 1936g: 534, 1979c: 195.
- planotruncatum** (Schedl) 1942a: 197 (*Xyleborus*). Holotype ♀; Malaya, Perak, Larut Hills, 4500 Fuss; BMNH, London. Distribution: Asia (Malaya). References: (ds) Browne 1961c: 165. (tx) Schedl 1942a: 197.
- polyodon** (Eggers) 1923a: 196 (*Xyleborus*). Lectotype ♀; Mt. Makiling, Insel Luzon; USNM, Washington, designated by Anderson & Anderson 1971: 26. Distribution: Asia (Malaya), Philippine Islands (Luzon). Hosts: *Artocarpus elasticus*. References: (ds) Schedl 1966b: 66, 1971c: 365. (tx) Anderson, W. H. & Anderson 1971: 26; Eggers 1923a: 196–197, 1927b: 404; Nobuchi 1983: 303.
- popondettiae** (Browne) 1970: 573 (*Xyleborus*). Holotype ♀; Papua New Guinea: N. Papua, Popondetta; BMNH, London. Distribution: New Guinea. Hosts: *Theobroma cacao*. References: (tx) Browne 1970: 573.
- posticespinatum** (Eggers) 1940c: 238 (*Xyleborus*). Holotype ♀; Congostaat (Bambesa); MRCB, Ter-vuren. Figures: Nunberg 1963: pl. 22, figs. 1–2, 7–8. Distribution: Africa (Angola/ Congo/ Nigeria/ Zaire). References: (ds) Browne 1970: 542; Ferreira 1965: 1124; Roberts 1969: 133; Schedl 1959p: 21, 1962j: 527. (tx) Eggers 1940c: 238; Nunberg 1963b: 46, pl. 22–23; Schedl 1962j: 527.
- praecursor** (Schedl) 1962j: 527 (*Xyleborus*). Holotype ♀; Congo Belge: Luki; Schedl Collection in NHMW, Wien. Distribution: Africa (Congo/ Zaire). Hosts: *Dacryodes pubescens*. References: (ds) Schedl 1966c: 225. (tx) Schedl 1962j: 527, 1979c: 198.
- pruinum** (Blandford) 1896b: 214 (*Xyleborus*). Holotype ♀; Borneo, Sarawak; BMNH, London. Distribution: Asia (Malaya), Indonesia (Borneo, Mentawai, Sumatra), Philippine Islands, Solomon Islands. Hosts: *Balanocarpus heimii*, *Canarium littorale*, *C. patentinervum*, *Dacryodes* sp., *Dryobalanops aromatica*, *Pethecellobium* sp., *Santiria griffithii*. References: (cc) Browne 1958b. (hb) Browne 1958b, 1961c: 162–163. (ds) Browne 1961a: 306, 1961c: 162, 1966: 256, 1981a: 126, 1985a: 191; Hagedorn 1910d: 109; Kleine 1914b: 289; Nunberg 1961b: 611; Schedl 1965g: 24. (tx) Blandford 1896b: 214; Browne 1955: 352, 1970: 573; Hagedorn 1910a: 156; Nobuchi 1983: 303.
- arcticollis** Blandford 1896b: 217 (*Xyleborus*). Holotype ♂; Sumatra; BMNH, London. Synonymy: Browne 1955: 352. References: (ds) Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 286. (tx) Blandford 1896b: 217; Browne 1955: 352.
- decipiens** Eggers 1923a: 182 (*Xyleborus*). Syn-types ♀; not given. Synonymy: Browne 1955: 352. Notes: (1) Originally named as a variety of *foersteri*, raised to species rank by Schedl 1936d: 3. References: (cn) Browne 1952; Mathur & Singh 1961a: 22; Yunas & Hua 1980: 230. (hb) Browne 1936a. (ds) Beeson 1961: 304; Browne 1936a; Mathur & Singh 1961a: 22;

- Nunberg 1961b: 610. (tx) Browne 1955: 352; Eggers 1923a: 182–183, 1927c: 93; Schedl 1936d: 3, 1939e: 331, 1942a: 170, 1942c: 163.
- psaltes** (Schedl) 1954e: 81 (*Xyleborus*). Lectotype ♂; Mpraeso, Gold Coast; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 200. Figures: Nunberg 1968: pl. 2, figs. 5–8. Distribution: Africa (Ghana/ Guinea/ Ivory Coast). Hosts: *Albizzia zygia*. References: (ds) Browne 1965a: 188; Schedl 1962h: 60, 1962j: 280, 1962k: 1102; Thompson, G. H. 1963: 72. (tx) Nunberg 1968a: 275, pl. 2; Schedl 1954e: 54, 81, 1955d: 269, 275, 1962j: 280, 1962k: 1102, 1979c: 200.
- ° **pseudocrucifer** (Schedl) 1939a: 470 (*Xyleborus*). Holotype ♀; Copal (Ethiopian Region); Geological Department, BMNH, London. Distribution: Africa (fossil in Copal from Ethiopia). References: (ds) Schedl 1962j: 280; Spahr 1981. (tx) Schedl 1939a: 470–471, 1962j: 280.
- pseudoforsteri** (Schedl) 1942a: 191 (*Xyleborus*). Holotype ♀; Borneo; Schedl Collection in NHMW, Wien. Distribution: Indonesia (Borneo). References: (tx) Schedl 1942a: 191, 1954c: 154, 1979c: 201.
- punctatopilosum** (Schedl) 1936g: 532 (*Xyleborus*). Holotype ♀; New Guinea; Schedl Collection in NHMW, Wien. Figures: Nunberg 1961b: 630–631 (adult). Distribution: Asia (Malaya/ Thailand), Indonesia (Borneo), New Guinea. Hosts: *Castanopsis sumatrana*, *Lithocarpus wallichianus*, *Pasania sundaica*, *Quercus wrayi*. References: (hv) Gray, B. 1974c. (cn) Yunus & Hua 1980: 230. (hb) Beaver & Browne 1978: 612; Browne 1941, 1961c: 160; Gray, B. 1974c. (ds) Beaver 1990a: 280; Beaver & Browne 1978: 612; Browne 1949b, 1961c: 160–161; Nunberg 1961b: 611–621, 630–631; Schedl 1936g: 532; Yunus & Hua 1980: 230. (tx) Browne 1949b; Schedl 1936g: 532, 1940b: 434, 1942a: 171, 1942d: 38, 1958k: 154, 1979c: 204.
- punctatum** (Eggers) 1923a: 182 (*Xyleborus*). Lectotype ♀; Si Ranbe auf Sumatra; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 205. Distribution: Indonesia (Sumatra). References: (tx) Eggers 1923a: 182–183; Schedl 1979c: 205.
- punctilicolle** (Schedl) 1942a: 190 (*Xyleborus*). Holotype ♀; Malaya, Perak; BMNH, London. Distribution: Asia (Malaya), Indonesia (Borneo). Hosts: *Vatica* sp. References: (ds) Browne 1961c: 161; Schedl 1964g: 242. (tx) Schedl 1942a: 190.
- quadricuspe** (Schedl) 1942d: 34 (*Xyleborus*). Holotype ♀; Ost Java; Schedl Collection in NHMW, Wien. Distribution: Indonesia (Java). References: (tx) Schedl 1942d: 34, 1979c: 208.
- revocabile** (Schedl) 1942c: 186 (*Xyleborus*). Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: (tx) Schedl 1942c: 186, 1979c: 211.
- rufonitidum** (Schedl) 1951i: 74 (*Xyleborus*). Holotype ♀; Java, Bandjar; Schedl Collection in NHMW, Wien. Distribution: Indonesia (Java). References: (hb) Kalshoven 1959c: 137. (ds) Kalshoven 1959c: 137. (tx) Schedl 1951i: 74, 1958k: 148, 1979c: 215.
- sculptor** (Schedl) 1961e: 153 (*Xyleborus*). Holotype ♀; Madagascar, Perinet; IRSM, Madagascar. Distribution: Madagascar. Hosts: *Mespilodaphne* sp. References: (tx) Schedl 1961e: 153, 1965c: 75–76, 1977a: 212, 1979c: 221.
- scapulare** (Schedl) 1942a: 193 (*Xyleborus*). Holotype ♀; Malaya, Selangor, Buloh F. R.; BMNH, London. Distribution: Asia (Malaya). References: (hb) Browne 1961c: 107. (tx) Schedl 1942a: 193.
- scorpium** (Schedl) 1942a: 187 (*Xyleborus*). Holotype ♀; Malaya, Perak, Trolak F. R.; BMNH, London. Distribution: Asia (Malaya). References: (ds) Browne 1961c: 165. (tx) Schedl 1942a: 187.
- sexspinum** (Schedl) 1935f: 271 (*Xyleborus*). Lectotype ♀; F.M.S.: Selangor-Bangi, Meserenti (Kepong); Rotan-Junggal F.R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 227. Figures: Nobuchi 1978a: pl. 3. Distribution: Asia (Malaya). Hosts: *Shorea parviflora*. References: (ds) Browne 1961c: 107; Nobuchi 1978a: 27; Ohno, Yoneyama, & Nakazawa 1982b: 9; Ohno et al. 1987: 88; Schedl 1966b: 70, 1969a: 205. (tx) Browne 1960: 204; Nobuchi 1978a: pl. 3, 1983: 304; Schedl 1935f: 271, 1942c: 188, 1955b: 303, 1979c: 227; Wylie & Yule 1977.
- sisyrnophorum** (Hagedorn) 1910b: 7 (*Xyleborus*). Holotype ♀; Tandjong Morawa; MNB, Berlin. Distribution: Asia (India/ Malaya), Indonesia (Borneo, Sumatra, Tandjong). Hosts: *Dryobalanops aromatica*, *Xerospermum* sp. References: (cn) Mathur & Singh 1961b: 95. (ds) Beeson 1961: 309; Browne 1961c: 163; Hagedorn 1910d: 111; Kleine 1913b: 163, 1914b: 268; Mathur & Singh 1961b: 95; Schedl 1936d: 5, 1965g:

24. (**tx**) Eggers 1923a: 183; Hagedorn 1910a: 156, 1910b: 7; Schedl 1939c: 330, 1965g: 24.
- spinibarbe** (Schedl) 1955i: 219 (*Xyleborus*). Holotype ♀; Tonkoui [Senegal?]; Schedl Collection in NHMW, Wien.
Distribution: Africa (Senegal).
References: (**tx**) Schedl 1955i: 212, 219, 1962j: 529, 1979c: 234.
- spinidens** (Eggers) 1920: 116 (*Xyleborus*). Syntypes 2 ♀; Johann Albrechtshöhe in Kamerun; MNB, Berlin.
Distribution: Africa (Cameroon).
References: (**ds**) Schedl 1962j: 529, 1964f: 618. (**tx**) Eggers 1920: 116; Schedl 1938h: 461, 1955i: 219, 1962j: 529.
- subagnatum** Wood 1992b: 85. Holotype ♀; Philippinen, Luzon, Mt. Irid.; NHMW, Wien.
Figures: Nobuchi 1978a: pl. 4.
Distribution: Australia, New Guinea, Philippine Islands (Luzon).
Hosts: Mangrove.
Notes: (1) This is *Xyleborus subagnatus*, nomen nudum of Eggers and Schedl. Schedl 1979c: 239 (invalid lectotype designation).
References: (**cn**) Wylie & Shanahan 1975. (**hb**) Wylie & Shanahan 1975. (**ds**) Browne 1984c: 450; Ohno et al. 1987: 88, 1988a: 94, 1989: 64; Schedl 1966g: 32, 1975i: 347, 1980b: 184. (**tx**) Nobuchi 1978a: pl. 4, 1983: 304; Schedl 1957d: 100, 1961f: 94, 1964m: 314, 1979c: 239; Wood, S. L. 1992b: 85–86.
- subobtusum** (Schedl) 1942a: 192 (*Xyleborus*). Lectotype ♀; Malaya, Pahang, Kemasul F. R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 243.
Distribution: Asia (Malaya).
Hosts: *Quercus* sp.
References: (**hb**) Browne 1961c: 162. (**tx**) Schedl 1942a: 192, 1979c: 243.
- sulcinoides** (Schedl) 1974d: 463 (*Xyleborus*). Holotype ♀; Gabensis, Morobe Dist., New Guinea, Block 10, New Guinea Industries logging area; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Anisoptera polyandra*.
References: (**tx**) Schedl 1974d: 463.
- sulcipenne** (Eggers) 1932d: 299 (*Xyleborus*). Holotype ♀; Congostaat, Likimi; Gundji; USNM, Washington.
Figures: Nunberg 1963b: pl. 29, figs. 1–2.
Distribution: Africa (Angola/ Cameroon/ Nigeria/ Uganda/ Zaïre).
Hosts: *Albizzia sekibalaruguma*, *Celtis zenkeri*.
References: (**ds**) Ferreira 1965: 1126; Schedl 1959p: 21, 25, 1962h: 61, 1962j: 281, 1962k: 1104, 1964j: 42. (**tx**) Anderson, W. H. & Anderson 1971: 33; Eggers 1932d: 299, 1940d: 148; Nunberg 1963b: 59, pls. 29–30; Schedl 1957d: 98–99, 1962j: 281, 1962k: 1104, 1965f: 13.
- tanibe** (Schedl) 1965c: 77 (*Xyleborus*). Holotype ♀; Madagascar, Montagne d'Ambre, 1100 m; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
References: (**tx**) Schedl 1965c: 77, 1977b: 219, 1979c: 249.
- tecleae** (Schedl) 1957c: 883 (*Xyleborus*). Holotype ♀; Uganda, Mpanga; BMNH, London.
Distribution: Africa (Uganda).
Hosts: *Celtis zenkeri*, *Teclea nobilis*.
References: (**ds**) Schedl 1962h: 61, 1962j: 169. (**tx**) Schedl 1957c: 883, 1962j: 169, 1962k: 1104, 1979c: 250.
- tenuigraphum** (Schedl) 1953e: 29 (*Xyleborus*). Lectotype ♀; Fukien, Kuatun, China; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 251.
Distribution: Asia (Fujian in China/ Uttar Pradesh in India).
References: (**ds**) Schedl 1969c: 55. (**tx**) Schedl 1953e: 29, 1954a: 154, 1955h: 45–46, 1979c: 251.
- terminaliae** (Hopkins) 1915b: 58 (*Terminalinus*). Holotype ♀; Pagbilao, Philippine Islands; USNM, Washington.
Distribution: Indonesia (Molucas Islands), Philippine Islands.
Hosts: *Terminalia edulis*.
References: (**ds**) Kleine 1934a: 156; Schedl 1966b: 73. (**tx**) Hopkins 1915b: 58; Nobuchi 1983: 304; Schedl 1952k: 162, 1958k: 154.
- procerior** Schedl 1942c: 189 (*Xyleborus*). Holotype ♀; Aru-Inseln; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1958k: 134.
References: (**ds**) Schedl 1966b: 66. (**tx**) Nobuchi 1983: 303; Schedl 1942c: 189, 1958k: 154, 1979c: 199.
- tuberculifer** (Eggers) 1923a: 195 (*Xyleborus*). Holotype ♀; Neu Guinea mer. (Bujakori); MCG, Genova.
Distribution: New Guinea.
References: (**tx**) Eggers 1923a: 195–196; Schedl 1942c: 191.
- tuberculosissimum** (Eggers) 1940d: 152 (*Xyleborus*). Holotype ♀; Java (Batoerraden, G. Slamet); Drescher Collection [1 Eggers cotype in NHMW, Wien].
Distribution: Indonesia (Java).
Hosts: *Shorea scabrida*.
References: (**ds**) Schedl 1964g: 242, 1966b: 75. (**tx**) Eggers 1940d: 152; Nobuchi 1983: 304; Schedl 1951i: 82, 1964g: 242, 1979c: 258.
- umbratum** (Eggers) 1941b: 223 (*Xyleborus*). Holotype ♀; China, Prov. Fukien (Kuatun, 2300 m); Alexander Koenig Museum, Bonn.
Distribution: Asia (Fujian in China).

References: (tx) Eggers 1941b: 223; Schedl 1955h: 45–46.

vagans (Schedl) 1977f: 504 (*Xyleborus*). Holotype ♀; Indo-China: Yen-Bay; Schedl Collection in NHMW, Wien.

Distribution: Asia (Vietnam).

References: (tx) Schedl 1977f: 504.

vigilans (Schedl) 1939f: 43 (*Xyleborus*). Lectotype ♀; Java, Batoerraden, C. Slamet; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Borneo, Java).

References: (ds) Browne 1960: 201, 1961c: 107, 1962c: 201. (tx) Schedl 1939f: 43–45, 1942a: 193, 1979c: 267.

Genus *Xyleborus* Eichhoff

XYLEBORUS EICHHOFF 1864: 37. Type-species: *Bostrichus monographus* Fabricius, subsequent designation by Lacordaire 1866: 381.

Anisandrus Ferrari 1867a: 24. Type-species: *Apatе dispar* Fabricius, monobasic. Synonymy: Hagedorn 1910d: 98.

References: (ay) Francke-Grosmann 1958: 139–144. (cn) Every 1951: 23–24. (ds) Scheerpeltz & Winkler 1930: 257. (tx) Balachowsky 1949a: 219; Beal & Massey 1945: 61, 149; Chamberlin 1939: 441–447; Dodge 1938: 53–54; Ferrari 1867a: 24; Hopkins 1915b: 10, 67–68; Reitter 1913a: 80, 83; Saalas 1914: 304–306; Schimitschek 1937: 50–53; Spessivtsev 1931: 89; Swaine 1918a: 50, 124–125; Thatcher, T. O. 1951: 79.

Anaeretus Duges 1887: 141. Type-species: *Anaeretus guanajuatensis* Duges = *Bostrichus volculus* Fabricius, monobasic. Synonymy: Hagedorn 1910d: 97.

References: (tx) Duges 1887: 141; Hagedorn 1910d: 97; Wood, S. L. 1983: 650.

Progenius Blandford 1896a: 20. Type-species: *Progenius fleutiauxi* Blandford = *Xyleborus subcostatus* Eichhoff, subsequent designation by Hopkins 1914: 128. Synonymy: Hagedorn 1910d: 98.

References: (tx) Beeson 1918: 114–124; Blandford 1896a: 20; Hagedorn 1910d: 98; Hopkins 1914: 128.

Heteroborips Reitter 1913a: 79, 82. Type-species: *Bostrichus cryptographus* Ratzeburg, monobasic. Synonymy: Schedl 1934f: 1645.

References: (tx) Balachowsky 1949a: 221; Reitter 1913a: 79, 82; Schedl 1934f: 1645; Scheerpeltz & Winkler 1930: 258.

Xyleborips Reitter 1913a: 79, 111. Type-species: *Xyleborus meuseli* Reitter, monobasic. Synonymy: Schedl 1934f: 1645.

References: (tx) Reitter 1913a: 79, 111; Schedl 1934f: 1645.

Boroxylon Hopkins 1915b: 10, 58. Type-species: *Boroxylon stephegynus* Hopkins = *Phloco-*

trogus bidentatus Motschulsky, original designation. Synonymy: Schedl 1952j: 162.

References: (tx) Hopkins 1915b: 10, 58; Schedl 1952j: 162.

Notoxyleborus Schedl 1934: 84. Type-species: *Notoxyleborus kalshoveni* Schedl, monobasic. Synonymy: Wood 1986a: 83.

References: (tx) Schedl 1934d: 84–85, 1969i: 138–139, 1977b: 126; Wood, S. L. 1986a: 83.

Keys: Bright 1968b: 1296, 1976: 131 for North America; Wood 1982b: 778 for North and Central America; Reitter 1913a: 81 for Europe, Yin, Huang, & Li 1984: 154–156 for China.

References: (ay) Andersen & Nilssen 1983: 1455; Francke-Grosmann 1958: 139–144; Gardner 1934: 4, 14–15; Nobuchi 1969a: 63; Nusslin 1911, 1912; Van Ryn-Tourmel 1975. (bv) Schedl 1960f: 10. (cn) Bally 1921: 1–24; Barbey 1901: 104; Beeson 1918: 114–124, 1922: 1–2, 1935: 539–543; Bernard 1919: 31–33; Betrem 1931: 799, 1932: 1115 (reprint p. 1–18), 1934: 73–86, 1938: 476–486; Betrem & Gandrup 1932: 18–29; Bodkin 1913: 29–32; Cachan 1957: 5; Craighead 1930: 11; Dourojeanni 1965: 9–32; Fisher, Thompson, & Webb 1954: 1–21; Fullaway 1914: 1–20; Garthwaite 1939: 95–104, 1940: 94–106; Gomez 1962: 218–219; Goot 1935: 1–79; Gowdey 1920: 25–27; Greene & Ulrich 1931: 277–282; Hall 1914, 1916: 1–47, 1918: 1–49, 1919d: 1–49, 1920: 1–50, 1922: 1–46, 1924: 1–53; Henry 1916: 94–100; Hill 1938: 9–13; Hopping & Jenkins 1933: 1–14; Iton 1959: 55–64; Johnston 1918: 61–82; Kalshoven 1924: 58–72; Lavabre 1958: 121; Lewton-Brain 1913: 1–45; Lugger 1899: 227; Luigioni 1929: 999; Maskew 1919: 309–311; May 1914: 1–35; Menzel 1923: 5–6; Michlitz 1881: 155; Morstatt 1914: 133–141; Moznette, Bissel, & Adair 1931: 47–48; Pasquier 1932: 223–253; Ramakrishna 1918: 74–77; Rau 1935: 10–25; Ritchie 1917: 92–97; Roepke 1911: 10–11; Roughley & Welch 1923: 1–27; Rutgers 1921: 1–25; Rutherford 1914: 41–44; Salt 1926: 9–62; Sasscer 1914: 240–244, 1920: 181–184; Seenen 1966: 149–150; Schultze 1923: 399–402; Smyth 1919: 109–129; Snyder 1927: 13, 40; Stambaugh 1955: 867–871; Sterrett 1916: 1–88; Swabey 1935: 1–39; Theobald 1914: Ultee 1927: 18–23; Ulrich 1913: 164–167; Van Dine 1913a: 25–46, 1913b: 251–257; Weame 1923: 412–413; Wilson 1921: 20–35; Wolcott 1921: 1–46, 1948: 381; Yazawa, Higochi, & Machii 1957: 1–56. (cc) Balazy 1963b; Flechtman 1985; Lindquist, E. E. 1970a: 981. (hb) Bright & Stark 1973: 76; Browne 1961c: 100; Bnysson 1880: 72–75; Esch-erich 1923: 440–487; Froggatt 1926: 144–146, 1926b: 359–362; Chesquiere 1933a: 25, 1933b: 774–778; Hess & Beck 1927: 344–347; Jacobson 1927: 463–478; Judeich & Nitsche 1895: 449–451; Lengerken 1939: 248–253; Lundblad 1958: 512; Munro 1928: 1–29; Neger 1908: 279; Nusslin 1907: 613; Perris 1877: 413; Rudnev 1928: 165–

- 206; Schedl 1962j: 102, 1977b: 127; Speyer 1923: 11–12; Wichmann 1927: 348–376; Wood, S. L. 1982b: 776, 1986a: 83. (**ds**) Atkinson, Rabaglia, & Bright 1990; Bertolini 1872: 202; Blackwelder 1947: 778; Bright & Stark 1973: 76; Brimblecombe 1953: 23; Browne 1961c: 100; Costa Lima 1956: 284–293; Endrodi 1957b: 417; Fleutiaux 1950: 9; Formanek 1907: 34, 51–52; Horion 1935: 351; Karaman 1972: 125; Kolbe 1897: 283; Kostin 1973: 270; Munro 1946: 10–48; Palm 1959: 42, 45, 353; Patterson & Hatch 1945: 145–156; Perkins 1900: 173–174; Provancher 1877: 567; Reitter 1906: 713; Schedl 1962j: 102, 1966b: 45, 1977b: 127; Scheerpeltz & Winkler 1930: 258; Scherdlin 1920: 207; Schreiner 1882: 248; Wachtl 1876: 458; Wood, S. L. 1982b: 776, 1986a: 83; Womdle 1950: 381. (**tx**) Arnett 1960: 1044, 1968: 1044; Balachowsky 1936: 22, 1949a: 218–232; Beal & Massey 1945: 9, 48–49, 54, 61, 151–152; Bedel 1885b: 397, 402; Beeson 1916: 217–221, 1930: 220–272, 1938: 291, 1941: 391–404; Blackman 1922b: 77, 116–117, 1950: 218–341; Blandford 1893c: 11, 1893d: 441–442, 1894b: 260, 1894d: 100–121, 1895b: 81, 1897a: 183–184, 1898b: 189–197; Blatchley & Leng 1916: 578, 592–593, 615; Bright 1963: 104, 1966c: 132, 1968b: 1288–1296, 1972: 71–73, 1976d: 130–131; Bright & Stark 1973: 76; Browne 1941: 63, 1949b: 898, 1950b: 641, 1955: 164–182, 1959: 292–300, 1960: 201–220, 1961c: 100–163, 1961d: 46–51, 1963c: 53–55, 1966: 233–257; Chamberlin 1918: 13, 35–36, 1939: 432–456, 1955: 181–187; Choo 1983: 102; Choo, Woo, & Nobuchi 1988b; Dodge 1935: 20, 54; Duffy 1953: 9, 14; Eggers 1923: 129–130, 1930: 177–208, 1933b: 24, 1939: 114–123, 1940: 99–108, 1943c: 64; Eichhoff 1864b: 37–46, 1868d: 419–422, 1869a: 275, 1878b: 58–65, 476–484, 1881a: 53, 268, 1883a: 108–142; Ferrari 1967a: 5, 19, 21–25, 1967b: 107, 110, 114, 1968: 258; Hagedorn 1904c: 412, 1906: 116, 1907b: 110, 1907c: 290–293, 1908: 376–377, 1909a: 744, 1909b: 138, 1910a: 98, 98–99, 1910b: 6–11, 1910d: 64, 1912b: 35, 1912c: 356, 1913b: 253–255; Hoffmann 1942: 72; Hopkins 1914: 116, 134, 1915b: 10, 60–62, 1915c: 171–227; Johnson, N. E. 1958: 236; Kalshoven 1922: 782–793, 1959: 135; Keen 1952: 186; Kirsch 1875: 283; Krivolitskaya 1958: 167; Kurenzov 1941: 193; Lacordaire 1866: 373, 380; LeConte 1868: 151–161, 1876: 358–360; LeConte & Horn 1883: 518; Lekander 1962: 421, 429; Lindemann 1876: 345; Lovendal 1889: 26–28, 72; Melville & China 1968; Motschulsky 1858: 65; Murayama 1928b: 29, 1930b: 22–23, 1931a: 41, 1933a: 21–30, 1953a: 16, 1954b: 202; Nisima 1909: 152; Numberg 1928: 137–173, 1954: 4–6, 57–58, 1959: 413–466, 1963: 1–127, 1968a: 272–299; Pfeffer 1989a: 85; Redtenbacher 1874: 381; Reitter 1894: 38, 69, 89–92, 1913a: 79–82, 1916: 293–295; Sampson 1911: 382, 1912: 247, 1914: 382, 1923: 286; Schedl 1931c: 339–347, 1933: 84, 1934d: 85, 1934f: 1645, 1937c: 550, 1937h: 170, 1938a: 173, 1940a: 361, 1940c: 203–208, 1942d: 39, 1944: 68, 1952k: 161–162, 1955g: 4, 1957d: 1–162, 1957e: 865–883, 1958d: 194, 1958f: 33–46, 1958k: 145, 148, 1959a: 493, 1959q: 705–710, 1960f: 110, 1962j: 102, 1962n: 698, 1962p: 203, 1963g: 52, 1963j: 481, 1964d: 213–214, 1964j: 52, 1965f: 3–15, 1968e: 261–270, 1977b: 126–127; Schimitschek 1937: 50–51; Sedlacek 1935: 157; Spessivtsev 1922: 477, 1931: 89; Stark 1952: 15–425; Stehling 1914: 582; Strohmeier 1906d: 41, 1910e: 128, 1911b: 17, 24–25; Swaine 1918a: 50, 126–127; Thompson, R. T. 1965; Thomson 1965: 269; Trappen 1935: 144; Wood, S. L. 1957a: 342–343, 1960a: 51, 1961a: 47, 1967c: 119–141, 1974h: 230–231, 1982b: 776–841, 1986a: 83; Yin & Huang 1981: 566.
- aberrans Schedl** 1959a: 502. Holotype ♀; Ceylon: Millawitiya Estate; Schedl Collection in NHMW, Wien.
Distribution: Asia (Sri Lanka), South America (introduced: Brazil).
References: (**ds**) Schedl 1959a: 502, 1971f: 148. (**tx**) Schedl 1959a: 502, 1979c: 8.
- abbreviatipennis Schedl** 1973e: 88. Holotype ♀; Bismarck Geb., New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (**tx**) Schedl 1973e: 88, 1979c: 8.
- abscissus Browne** 1974b: 537. Holotype ♀; Sarawak: Kuching; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Shorea* sp.
References: (**ds**) Browne 1980b: 381; Ohno et al. 1987a: 87. (**tx**) Browne 1974b: 537.
- acanthurus (Lea)** 1910: 137 (*Tomicus*). Holotype ♀; Queensland: Cairns; NMV, Melbourne.
Distribution: Australia (Queensland).
References: (**ds**) Brimblecombe 1953: 27. (**tx**) Lea 1910: 137; Schedl 1938f: 50, 1962j: 313–314.
- adamsoni Beeson** 1935a: 120. Holotype ♀; Tahiti: Papenoo Valley; not given.
Distribution: Rarotonga in Cook Islands, Marquesas Islands, Tahiti Islands.
References: (**ds**) Beaver & Maddison 1990: 1372; Beeson 1935b: 291, 1940: 200. (**tx**) Beaver 1991: 94; Beeson 1935a: 120; Schedl 1955b: 287.
- nigroaffinis Beeson** 1940: 199. Holotype ♀; Society Islands: Tahiti, Taoriri, Mt. Aorai Trail; BPBM, Honolulu. Synonymy: Beaver 1991: 94.
References: (**tx**) Beaver 1991: 94; Beeson 1940: 199; McNamara 1984: 759.
- rapanus Beeson** 1940: 200. Syntypes 2 ♀; Mangareva Islands, Rapa Island; Maitua, 700–800 ft.; BPBM, Honolulu. Synonymy: Beaver 1991: 94.
References: (**tx**) Beaver 1991: 94; Beeson 1940: 200.

adelographus Eichhoff 1868a: 400. Syntypes ♀; Brasilia; Hamburg Museum, lost.

Figures: Nunberg 1959a: pl. 15, figs. 1–2, Pedrosa-Macedo & Schonherr 1985: 22.

Distribution: South America (Argentina/ Brazil/ Cayenne/ Colombia/ Guyana/ Paraguay).

Hosts: *Araucaria angustifolia*, *Counna macrocarpa*, *Pinus elliottii*.

References: (ds) Blackwelder 1947: 779; Gemminger & Harold 1872: 2684; Hagedorn 1910d: 98; Kleine 1913b: 158, 1914b: 337, 339; Nunberg 1962: 224; Pedrosa-Macedo & Schonherr 1985: 22; Schedl 1952a: 446, 1966f: 87, 1967d: 2, 1970e: 83, 1973d: 162, 1976a: 53, 1978c: 291; Schonherr & Pedrosa-Macedo 1981: 54. (tx) Eggers 1933b: 3, 31–32, 1941a: 103; Eichhoff 1868a: 400, 1875: 202, 1878b: 352; Hagedorn 1905a: 412, 1910a: 152, 1910b; Nunberg 1959a: 413; Pedrosa-Macedo & Schonherr 1985: 22; Schedl 1936i: 108–109, 1948f: 281, 1952a: 446; Wood, S. L. 1975a: 22.

vitiosus Schedl 1940a: 367. Holotype ♀; Mexico; Schedl Collection in NHMW, Wien. Synonymy: Wood 1975a: 22, 1982b: 778.

Notes: (1) This holotype is an intercepted or obviously mislabeled specimen from Brazil and should not be cited as occurring in Mexico without additional records.

References: (ds) Blackwelder 1947: 780. (tx) Schedl 1940a: 367–368, 1979c: 268; Wood, S. L. 1975a: 22, 1982b: 778.

acommodatus Schedl 1966f: 112. Holotype ♀; Rio de Janeiro; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 176.

References: (tx) Schedl 1966f: 112, 1979c: 10; Wood, S. L. 1989: 176.

adossuarius Schedl 1952b: 367. Syntypes ♀; Luzon; Baguio, Benguet-Irisan; Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands (Luzon).

Notes: (1) Schedl 1979c: 12 (citation of holotype invalid).

References: (ds) Schedl 1966b: 45. (tx) Nobuchi 1983: 302; Schedl 1952b: 367–368, 1979c: 12.

adusticollis (Motschulsky) 1863: 514 (*Toxicus*). Holotype ♀; Montagnes de Nura-Ellia; IZM, Moscow.

Distribution: Asia (Malaya/ Sri Lanka), Indonesia (Sarawak in Borneo, Java), Philippine Islands.

Hosts: *Aegle marmelos*, *Cinnamomum* sp., *Eugenia* sp., *Kopsia flavida*, *Lansium domesticum*, *Palaequium gutta*, *Quercus* sp., *Veronica arborescens*, *Xanthophyllum*. Brownie 1961c: 157 records seven additional families without citing species.

References: (ds) Gemminger & Harold 1872: 2689; Hagedorn 1910d: 48; Kleine 1913b: 127, 1914b: 273. (tx) Hagedorn 1910a: 103; Motschulsky 1863: 514; Wood, S. L. 1969c: 120.

vestitus Schedl 1931c: 341. Holotype ♀; Java,

Buitenzorg, 250 m; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 176.

Notes: (3) Browne 1983a: 554 incorrectly cited this species in *Streptocranus* (= *Coptoborus*). Schedl 1939e: 354 (described male).

References: (hb) Beaver & Browne 1978: 614; Browne 1961c: 157; Kalshoven 1959c: 157. (ds) Beaver & Browne 1978: 614; Browne 1961c: 157, 1962c: 202, 1983a: 554, 1985b: 291; Kalshoven 1959c: 157; Nobuchi 1978a: 19; Schedl 1966g: 33. (tx) Browne 1983a: 554; Nobuchi 1978a: pl. 2, 1983: 304; Schedl 1931c: 341–342, 1939e: 354, 1950g: 895, 1954a: 144, 1979c: 266; Wood, S. L. 1989: 176.

aequalis (Reitter) 1913a: 81 (*Anisandrus*). Holotype ♀; Ostsibirien; Sotka-gora; NHMB, Budapest.

Distribution: Asia (E USSR).

Hosts: *Juglans mandschurica*, *Phellodendron amurense*.

References: (cn) Kurenzov 1935c: 189, 1956b: 29. (ec) Kurenzov 1934a: 50, 1951d: 36, 1951e: 66. (hb) Kurenzov 1935a: 37, 1948b: 112, 1951b: 18, 1951d: 36, 1951e: 66; Stark 1952: 429. (ds) Konovalova 1966: 106; Krivolutskaya 1983; Krivolutskaya & Kupyanskaya 1970; Kurenzov 1934a: 50, 1935a: 37, 1935c: 189, 1936a: 110, 1936b: 351, 1938a: 60; Mandl 1931: 25; Stark 1952: 429; Yanovsky & Tegshzhargal 1985: 413. (tx) Kurenzov 1941a: 190–193, 1948b: 112; Reitter 1913a: 81; Schedl 1934f: 1645; Stark 1952: 429.

aequatorensis Eggers 1940b: 108. Holotype ♀; Congostaat, Equateur (Flandria); MRCB, Tervuren.

Figures: Nunberg 1963b: pl. 2, figs. 5–8.

Distribution: Africa (Zaire).

References: (tx) Eggers 1940b: 108; Nunberg 1963b: 11, pl. 2; Schedl 1962j: 235, 1979c: 13.

affinis Eichhoff 1868a: 401. Syntypes ♀; America bor., Cuba; syntypes in Hamburg Museum were lost, 1 in USNM, Washington.

Figures: Bright 1972d: 95, 1976d: 133, Guagliumi 1972: 405, Nunberg 1978: 102, Pedrosa-Macedo & Schonherr 1985: 23, Sammelson 1981: 54, Schedl 1977b: 167, Wood 1960a: 65.

Distribution: Africa (Angola/ Comore in Azores Islands/ Burundi/ Cameroon/ Congo/ Equatorial Guinea/ Ethiopia/ Eritrea/ French West Africa/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Liberia/ Malawi/ Mauritania/ Mauritius Island/ Mozambique/ Nigeria/ Ruanda/ Senegal/ Seychelles Islands/ Sierra Leone/ South Africa/ Tanzania/ Togo/ Uganda/ Zaire/ Zambia), Antilles Islands (Barbados/ Cuba/ Dominica/ Guadeloupe/ Dominican Republic in Hispanola/ Jamaica/ Puerto Rico/ Tobago/ Trinidad), Asia (India/ Israel/ Malaya/ Sri Lanka), Australia, Cook Islands, Fiji Islands, Galapagos Islands, Hawaiian Islands, Indonesia (Celebes, Java, Sumatra), Madagascar, Micronesia (Truk in Mariana Islands,

Palau Islands), North America (Belize/ Costa Rica/ El Salvador/ Guatemala/ Honduras/ Isla del Coco/ all states in Mexico/ Nicaragua/ Panama/ Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Illinois, Indiana, Louisiana, Maryland, Massachusetts, Michigan, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Texas, Virginia, West Virginia in USA), Philippine Islands, Reunion Island, Samoan Islands, South America (Argentina/ Bolivia/ Brazil/ Cayenne/ Chile/ Colombia/ Ecuador/ Guyana/ Paraguay/ Peru/ Suriname/ Uruguay/ Venezuela), Tahiti Islands.

Hosts: Several hundred hosts are listed by Wood 1982b: 831 and Schedl 1962j: 349–360.

References: (ay) Francke-Grosmann 1963a: 359, 1963b: 423; Schneider 1976. (bv) Atkinson, Foltz, & Connor 1988; Aulmann 1911: 438–441; Dethier 1947; Phillips et al. 1988; Turnbow & Franklin 1980. (cn) Alliot & Ivanov 1950: 163–168; Anonymous 1964h, 1965g, 1967i, 1968k, 1969h, 1976e; Aulmann 1913: 1–126; Bavendamm, Schneider, & Mielke 1962: 8–9; Beal & Massey 1945: 158–159; Beaver 1976a: 23; Blackman 1950: 307, 340; Blandford 1892b: 157; Bondar 1922; Box 1953a; Cachan 1957: 42–53; Carter 1949: 761–766; Chamberlin 1939: 452; Christian 1939; Cleare 1924: 65–68; Costa Lima 1956; Dinther 1957, 1960: 111–112; Doane et al. 1936; Downes & Williams 1950; Ebeling 1950: 537, 1959; Equihua-Martinez 1988; Estrada & Atkinson 1988: 207; Ferreira & Morin 1985; Ghesquiere 1933a; Cowdey 1914: 36–58, 1918: 42–51; Green 1916: 608–636; Guagliumi 1972: 407, 1973: 407; Hagedorn 1913a; Hamlen & Woodruff 1975; Hargreaves 1925: 21–28; Hart 1892b, 1893; Hopkins 1902b: 62, 1904a: 45, 1905a: 381–398; Hubbard 1897b: 21; Kleine 1932a: 305; Kowal 1949b: 470; Leiby 1925; Pawsey 1968; Riley 1892a: 402; Sallénave 1948: 434–440; Sefer 1961; Silva, Gayao, & Castro 1959: 11; Small 1921: 38; Titus & Pratt 1904: 7; Tsankov 1977; Tsankov et al. 1974: 25; Ulrich 1913: 247–249, 1915: 156–161, 200–203; Vuillaume et al. 1981: 348; Woodruff & Hamlen 1974; Wyniger 1962a: 118, 1962b: 397; Yunus & Hua 1980: 230; Zehntner 1900: 501. (ec) Baker 1963: 222–265; Batista 1947: 109; Batra 1963b: 213–236; Beaver 1988a: 65; Carter 1949; Chamberlin 1939: 452; Equihua & Atkinson 1986: 629; Norris 1979; Roeper et al. 1980; Schedl, W. 1962: 364–366; Schneider 1976, 1987; Slaby 1947: 378; Verrall 1941: 552, 1943: 125, 135–144; Vuillaume et al. 1981: 348; Woodruff & Hamlen 1974. (hb) Atkinson & Equihua 1985b: 237; Atkinson, Foltz, & Connor 1988; Aulmann 1911; Baker, W. L. 1972: 270; Beal & Massey 1945: 158–159; Beaver 1976a: 23, 1988a: 65, 1989a: 2, 4; Beaver & Browne 1978: 602; Beaver & Loeytyniemi 1985a: 73; Beeson 1929; Blackman 1922b: 116–118, 1950; Blandford 1892b; Bright 1976d: 137;

Browne 1961e: 10, 1963a: 239; Chamberlin 1939: 449–452; Costa Lima 1956; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Drooz 1985: 374; Ebeling 1950; Equihua & Atkinson 1986: 629; Ferreira & Morin 1985; Gardner 1957: 33; Guagliumi 1972: 73; Hagedorn 1913a; Hart 1892: 342; Hoffmann 1941; Hopkins 1904a: 45, 1905a: 383; Hubbard 1897b: 21; Jones, Roberts, & Baker 1959: 13–56; Kalshoven 1963; Kleine 1932a: 305; Loeytyniemi, Beaver, & Loeytyniemi 1984; Morstatt 1924: 36; Ostmark 1968; Pollet 1977; Roberts 1960: 35–38, 1961: 39–60, 1969: 130; Roeper et al. 1980; Schedl 1958d: 189, 1962j: 361, 1977b: 168; Schneider 1987; Speyer 1923: 19; Viana 1964: 123; Webb & Jones 1957: 25–43; Wood, S. L. 1982b: 830; Woodruff & Hamlen 1974; Zehntner 1900: 501. (ds) Alluaud 1900: 439; Anonymous 1964h, 1965g, 1967i, 1969h, 1976e; Atkinson & Equihua 1985b: 237, 1986a: 421; Atkinson et al. 1986: 62, 1991: 160; Baker, W. L. 1972: 270; Beal & Massey 1945: 158–159; Beaver 1976a: 23, 1988a: 65, 1989a: 2, 4; Beaver & Browne 1961c: 145, 1978: 602; Beaver & Loeytyniemi 1985a: 73; Beeson 1929, 1938: 199; Bhasin, Roonwal, & Singh 1958: 122; Blackman 1922b: 116–118, 1950: 307, 340; Blackwelder 1947: 779; Blandford 1898b; Blatchley & Leng 1916: 618; Brader 1964: 5; Bright 1968b: 1315, 1972d: 83, 1976d: 137, 1982a: 128, 1985c: 173; Brimblecombe 1953: 27; Brimley 1938: 248; Browne 1949e: 174–189, 1963a: 238–239, 1975a: 759, 1975b: 395; Bruch 1914a: 429; Brunner et al. 1945; Carter 1949: 761–766; Chamberlin 1939: 449–452; Cola 1971: 65, 1973; Costa Lima 1936, 1956; Currie 1905: 7; DeLeon 1042a; Deyrup 1981b: 6; Deyrup & Atkinson 1987a: 65; Drooz 1985: 374; Ebeling 1950, 1959; Eggers 1926; Equihua & Atkinson 1986: 629; Estrada & Atkinson 1988: 207; Ferreira & Morin 1985; Fleutiaux & Salle 1890: 457; Frost 1964: 144; Gemminger & Harold 1872: 2685; Ghesquiere 1933a; Guagliumi 1966: 218, 1972, 1973: 404; Hagedorn 1907a: 261, 1907b: 111, 1910d: 98, 1913a; Hayward 1942: 29; Hoffmann 1940: 61, 1941: 42, 1942: 13; Kalshoven 1924: 9, 1963: 235–236; Kirk 1969, 1970; Kleine 1912a: 162, 212, 1913b: 158, 1914b: 303, 324, 337, 343–344, 354, 373, 378–379, 1928: 305, 1932a: 305, 1934a: 171; Kolbe 1910: 41; Lee 1971: 31; Leng 1920: 342; Leng & Mutchler 1917: 220; Lepesme et al. 1948: 647; Martorell 1945: 470; Mayne 1915: 577–596; Murayama 1936b: 115; Nunberg 1952: 20, 1958a: 481, 1961a: 329, 1962: 224, 1963c: 98, 1965b: 20, 1971: 58, 1972b: 197; Ohno, Yoneyama, & Nakazawa 1982a: 3, 1982b: 8, 1987: 94; Ohno et al. 1987: 87, 1988a: 92, 1989: 61; Ostmark 1968; Pedrosa-Macedo & Schonherr 1985: 23; Pollet 1977; Riley 1894: 227; Roonwal 1954: 23, 54; Samuelson 1981; Santoro 1957: 26; Schedl 1962j: 21, 1940: 365–366, 1943d: 69, 1948g: 25, 1950h: 105, 1951b: 376, 1951h: 285,

1952a: 444, 1953d: 70, 1957d: 15–16, 84, 102, 1958f: 35–36, 1959a: 470, 504, 1960a: 75–80, 1960f: 57–100, 1961d: 177, 1961j: 349, 1962h: 60, 1962j: 331–374, 1962m: 62, 1962p: 209, 494, 1962q: 482–494, 1962r: 96, 1963a: 31, 1963c: 160, 1963f: 52, 1963h: 268, 1964e: 69, 1964f: 618, 1964i: 248, 1964j: 42, 1964m: 315, 1965: 21–22, 1966a: 276, 1966c: 227–228, 1966g: 36–37, 1967d: 3, 1967e: 1217, 1967f: 156, 1969d: 7–11, 1969h: 105, 1970c: 70, 1970d: 234, 1970e: 84, 90, 1970f: 581, 1970g: 309–312, 1971e: 2, 1971f: 149, 1971g: 192, 1972b: 266, 1972e: 282, 1972g: 40, 1972k: 295, 1973a: 367, 1973d: 156, 1974e: 52, 1975h: 350, 1975k: 277, 1976a: 53, 1977b: 168, 1977d: 279, 1977e: 43, 1978c: 292, 1979b: 416, 1982: 279; Schneider 1959: 8–12, 1987; Schonherr & Pedrosa-Macedo 1981: 54; Schreiner 1882: 248; Schwarz 1895b: 171; Sefer 1961; Smith, J. B. 1910: 402; Spahr 1981; Stahel 1917: 3; Swaine 1909: 151; Terra 1987: 25; Tumbow & Franklin 1980; Viana 1964: 123; Webb 1945: 67; Wichmann 1954: 503, 517–521; Wolcott 1936: 318, 1948: 381–383; Wood, S. L. 1957e: 1273, 1960a: 51, 1961c: 1, 1977a: 73, 1982b: 830; Woodruff & Hamlen 1974; Yunus & Hua 1980: 230; Zehntner 1900: 1; Zimmermann 1908a: 269. (tx) Aulmann 1911; Beal & Massey 1945: 158–159; Beeson 1929: 245, 1935: 119–120; Blackman 1922b: 116–118; Blandford 1892b, 1893c: 1–46, 1894d: 116, 1895b: 195–196, 216, 1896: 20, 1898b: 216–217, 1898c: 3–5; Blatchley & Leng 1916: 618–619; Bright 1968b: 1315–1316, 1972d: 83, 95, 1976d: 133, 137, 1982a: 128, 1985c: 173; Chamberlin 1939: 449–452; Costa Lima 1936: 358, 1956: 291; Eggers 1926a: 301, 1927b: 193–194, 1930d, 1932d: 303, 1933b: 3, 36, 1940a: 108; Eichhoff 1868a: 401, 1877: 126–127, 1878b: 372, 1896: 609–610; Cnagiumi 1972: 405; Hagedorn 1905a: 412, 1907a: 261, 1907b: 111, 1910a: 152, 1912a: 340–343, 1913b: 255–256; Hopkins 1915b: 61, 64; Hubbard 1897b: 20–21; Keler 1928: 29; Kirsch 1875: 284; Nunberg 1952: 20, 1958a: 481, 1968: 272, 1978: 101, 102; Pedrosa-Macedo & Schonherr 1985: 23; Powell, W. 1980: 29; Sampson 1914: 387–388; Samuelson 1981: 54; Schaufuss 1897a: 210, 1897b: 101–103; Schedl 1931c: 346, 1951k: 140, 1952k: 163, 1957a: 194, 1966f: 76, 1977b: 167–168; Schwarz 1895b: 171, 210; Strohmeyer 1911: 25; Swaine 1909: 151, 1917: 24, 1918a: 127; Terra 1987: 25; Wood, S. L. 1960a: 51, 65, 73, 1961: 1, 1982b: 830; Wylie & Yule 1977. (ms) Schedl 1972c: 282.

affinis parvus Eichhoff 1878b: 372. Syntypes ♀; not given; Hamburg Museum, lost. Synonymy: Wood 1960a: 71.

References: (tx) Eggers 1933b: 3, 1940a: 108; Eichhoff 1878b: 372; Wood, S. L. 1960a: 71.

affinis mascarensis Eichhoff 1878b: 372. Syntypes ♀; St. Mauritius insula Africana; Hamburg Museum, lost. Synonymy: Wood 1960a: 71.

References: (ay) Batra 1963b: 228; Entwistle

1963b; Francke-Grosman & Schedl 1960: 405; Lhoste & Roche 1960; Schneider 1976; Van Ryn-Tournel 1972. (bv) Entwistle 1963b; Schedl 1960f: 57. (cn) Anonymous 1953j: 25, 1970c: 14; Bondar 1940; Browne 1949e; Dinther 1961; Frappa 1933: 179; Chesquiere 1933a: 26–36, 1933b: 776–785; Roberts 1961a: 42; Roonwal 1954: 23; Schneider & Leder 1959: 8; Schwerdtfeger 1966b. (ec) Anonymous 1953j: 25; Browne 1961c: 10; Francke-Grosman & Schedl 1960; Schedl 1958d: 189; Schneider 1976; Walt, Scott, & Van Der Klift 1971b: 468. (hb) Anonymous 1959c: 18; Browne 1961c: 145; Entwistle 1963b; Roberts 1961a: 42; Schedl 1962j: 331; Swabey 1935: 6; Thompson, G. H. 1963: 72. (ds) Anonymous 1970c: 14; Beeson 1935b, 1938b, 1940, 1941: 399, 1961: 307; Browne 1961c: 10; Choo & Woo 1983; Cola 1971; Eggers 1926a; Ferreira 1965: 1124; Ferrer 1942; Chesquiere 1933a; Lee, R. F. 1971; Mayne & Donis 1960: 104, 1962: 320; Menier 1973a; Nobuchi 1979a: 406; Nonveiller 1984: 41; Nunberg 1972b: 197; Quayle 1941; Roberts 1960b: 35, 1960e, 1960f; Roonwal 1954: 23; Schedl 1936d: 4, 1936j: 21, 1938d: 451, 1959a: 504, 1959p: 20, 1960a: 76, 1960f: 40, 1961c: 70, 1961f: 177, 1961j: 349, 1962h: 60, 1962j: 331, 1962k: 1101, 1963a: 37, 1963c: 160, 1962j: 60, 1964e: 69, 1964f: 618, 1964i: 248, 1964j: 42, 1965e: 355, 1965g: 21, 1966a: 276, 1966c: 227, 1966f: 76, 1966g: 32, 1967d: 3, 1967e: 217, 1969d: 4, 1970d: 234, 1970e: 84, 1971a: 278, 1971f: 149; Schwerdtfeger 1960b; Spahr 1981; Swabey 1935: 6; Thompson, G. H. 1963: 72; Van Zwaluwenburg 1956: 9. (tx) Beeson 1929: 240–241, 1935b: 119, 1938: 293, 1940: 199; Eggers 1926a: 301, 1927a: 195, 1933b: 373, 1940a: 108, 1940c: 238, 1941a: 108, 1941d: 179, 1943c: 65–66; Mayne & Donis 1962: 320; Nobuchi 1978a: pl. 4; Schanfuß 1897a: 210; Schedl 1935j: 1, 1936d: 4, 21, 1938d: 451, 1939e: 333, 1939g: 170, 1940a: 365, 1941b: 114, 1941d: 380, 1942a: 171, 1942d: 7, 1948c: 665, 1948d: 36, 1948f: 261, 1950c: 205, 1950d: 9, 13, 15, 18, 31, 1950e: 212, 1950g: 893, 1950h: 105, 1951e: 39–40, 1951f: 40, 1951i: 46, 1951k: 140, 1951m: 73, 1952a: 444, 1952g: 53, 1952h: 66, 71, 1952j: 5, 1952k: 163, 1953d: 70, 1953g: 242, 1954a: 142, 1954d: 872, 1954e: 47, 53, 1955d: 269, 1955f: 260, 1955g: 45, 1957a: 194, 1957b: 151, 1957d: 15, 84, 1958c: 1, 1959a: 504, 1962j: 331, 1962r: 96, 1965g: 21; Wood, S. L. 1960a: 51, 73.

affinis fuscobrunneus Eichhoff 1878b: 372. Lectotype ♀; Brasilia; Schedl Collection in NIMW, Wien, syntypes in Hamburg Museum were lost, 1 in Schedl Collection in NIMW, Wien. Synonymy: Schedl 1959a: 504.

References: (hb) Viana 1964: 123. (ds) Nmi-

- berg 1958: 481; Santoro 1957b: 26; Viana 1964: 123. **(tx)** Eichhoff 1878b: 372; Schedl 1938i: 28, 1940a: 365–366, 1940c: 208, 1943d: 66, 1948d: 36, 1948g: 25, 1950i: 147, 1951h: 285–286, 1952a: 444, 446, 1952d: 343, 1952h: 71, 1955g: 46, 1958f: 35–36, 1959a: 504, 1979c: 14.
- sacchari* Hopkins 1915b: 64. Holotype ♀; St. Vincent, West Indies; USNM, Washington. Synonymy: Schedl 1959a: 504, Wood 1982b: 830. References: **(cn)** Scaramuzza 1942: 147; Souphieff & Scherbinovskaja 1937: 103. **(hb)** Morstatt 1924: 50. **(ds)** Leng & Mutchler 1917: 220; Martorell 1945: 471; Souphieff & Scherbinovskaja 1937: 103; Wolcott 1933: 373, 1936: 319. **(tx)** Beeson 1929: 240–241; Hopkins 1915b: 64; Schedl 1959a: 504, 1962j: 331.
- subaffinis* Eggers 1933b: 36. Holotype ♀; Franz. Guayana (Nouveau Chantier, St-Laurent du Maroni); MNHN, Paris. Synonymy: Schedl 1959a: 504. References: **(ds)** Blackwelder 1947: 780; Floch 1947, 1950. **(tx)** Eggers 1933b: 36; Schedl 1939c: 333, 1939j: 565, 1940a: 365, 1940c: 208, 1943d: 56, 1951b: 376, 1952h: 71, 1955g: 46, 1959a: 504, 1962j: 331.
- societatis* Beeson 1935a: 120. Holotype ♀; Tahiti: Papenoo Valley; BPBM, Honolulu. Synonymy: Beaver 1991: 94. References: **(tx)** Beaver 1991: 94; Beeson 1935a: 120–121, 1938b: 294.
- proximus* Eggers 1943c: 66. Holotype ♀; Congostaat: Leopoldville, Lomami-Kamiema Bangwela; MRCB, Tervuren. Synonymy: Schedl 1962j: 331. References: **(tx)** Eggers 1943c: 66–67; Schedl 1950g: 893, 1959a: 504, 1962j: 331, 404.
- africanus* Eggers 1927a: 194. Holotype ♀; Belg.-Congo: Ituri, Medje; MRCB, Tervuren. Figures: Nunberg 1963b: pl. 3, figs. 1–6. Distribution: Africa (Cameroon/ Equatorial Guinea/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Nigeria/ Seychelles Islands/ Uganda/ Zaire/ Zambia). Hosts: *Albizzia gunnifera*, *Beilschmiedia corbisieri*, *Chrysophyllum lacairtianum*, *Cistanthera papaverifera*, *Gossypium hirsutum*, *Maesobothrya* sp., *Theobroma cacao*, *Turraecanthus africana*. References: **(cn)** Beaver 1988a: 65. **(hb)** Beaver 1988a: 65; Loyttyniemi, Beaver, & Loyttyniemi 1984; Schedl 1962j: 328. **(ds)** Beaver 1988a: 65; Beaver & Loyttyniemi 1985a: 73; Browne 1965: 188, 1983a: 556; Ghesquiere 1933a: 31, 35, 1933b: 781, 785; Kleine 1934a: 172; Nunberg 1952: 20, 1965b: 20; Roberts 1969: 130; Schedl 1962h: 60, 1962j: 328, 1962k: 1098, 1964j: 42, 1967e: 215, 1969d: 9, 1971g: 192, 1977b: 175; Wichmann 1954: 522. **(tx)** Eggers 1927a: 194; Nunberg 1952: 20, 1963b: 12, pl. 3; Schedl 1954d: 871, 1955d: 270, 1957d: 96, 1962h: 60, 1962j: 328, 1970e: 96, 1977b: 175.
- africanus picinus* Schedl 1957d: 96. Holotype ♀; Congo Belge: Kivu, route Tshibinda-Bunyakini; MRCB, Tervuren. References: **(hb)** Schedl 1962j: 329. **(ds)** Schedl 1962h: 60, 1962j: 329. **(tx)** Nunberg 1963b: pl. 3; Schedl 1957d: 96, 1962j: 329, 1963b: pl. 3, 1979c: 15.
- agamus* Perkins 1900: 178. Lectotype ♂; Lanai; BMNH, London, designated by Samuelson 1981: 69. Distribution: Hawaiian Islands (Hawaii, Lanai). Hosts: *Freyinetia* sp. References: **(ds)** Beeson 1938b: 291; Hagedorn 1910d: 98; Kleine 1913b: 158, 1914b: 302; Samuelson 1981: 69. **(tx)** Hagedorn 1910a: 152; Perkins 1900: 178; Samuelson 1981: 69.
- agathis* Browne 1984b: 291. Holotype ♀; Indonesia to Kawasaki (Japan), imported; BMNH, London. Distribution: Indonesia. Hosts: *Agathis* sp. References: **(tx)** Browne 1984b: 291.
- aglaiae* Browne 1984a: 156. Holotype ♀; Putput (New Britain) to Nagoya (Japan), imported; BMNH, London. Distribution: New Britain Island. Hosts: *Aglaiia* sp. References: **(ds)** Ohno et al. 1989: 61. **(tx)** Browne 1984a: 156.
- agraphus* Schedl 1977f: 503. Holotype ♀; Philippine Is.: La Provesdora Inc, Angeles, Pampanda; Schedl Collection in NHMW, Wien. Distribution: Philippine Islands. References: **(tx)** Nobuchi 1983: 302; Schedl 1977f: 503.
- algidus* Schedl 1979b: 414. Holotype ♀; Cote d'Ivoire, Man-Orstom; Schedl Collection in NHMW, Wien. Distribution: Africa (Ivory Coast). References: **(tx)** Schedl 1979b: 414.
- alluaudi* Schaufuss 1897a: 210. Syntypes ♂ ♀; Madagascar, Diego Suarez; Menge and Schaufuss Collections. Figures: Nunberg 1978: 104, Schedl 1962j: 236, 1977b: 150. Distribution: Africa (Burundi/ Cameroon/ Equatorial Guinea/ Ethiopia/ Fernando Poo/ Gabon/ Ghana/ Ivory Coast/ Kenya/ Nigeria/ Ruanda/ Sierra Leone/ South Africa/ Sudan/ Tanzania/ Uganda/ Zaire/ Zambia), Madagascar. Hosts: Many listed by Schedl 1962: 239–248. Notes: (3) Eggers 1920: 24 (*ustulatus* Hagedorn, nomen nudum, synonymy). References: **(ay)** Schedl, W. 1962: 368. **(bv)** Aulmann 1911, 1912: 41–42; Schedl 1960f: 39. **(ec)** Schedl 1958d: 192, 1962j: 235. **(hb)** Aulmann 1911; Beaver & Loyttyniemi 1985a: 73; Browne

1963a: 239–240; Loytyniemi, Beaver, & Loytyniemi 1984; Schedl 1958d: 192, 1962j: 235, 1977b: 150; Webb & Jones 1957: 25–42. (**ds**) Alluaud 1900: 440; Beaver & Loytyniemi 1985a: 73; Browne 1963a: 239, 1975b: 395, 1980a: 373, 1980c: 485, 1981b: 597; Cachan 1957: 15, 42–43, 1958: 394; Cola 1971; Frappe 1933: 179; Gardner, J. C. M. 1957a: 32; Ghesquiere 1933a: 31–36, 1933b: 781; Hagedorn 1907a, 1910d: 98; Jones, Roberts, & Baker 1959: 13–55; Kleine 1912a: 212, 1913b: 160, 1914b: 326, 1928: 307; Mayne & Donis 1960: 39, 119, 1962: 315; Menier 1973a; Nunberg 1952: 20, 1965b: 20; Roberts 1960: 35–38, 1969: 59, 130; Schedl 1960f: 39, 119, 1962h: 60, 1962j: 235, 1964e: 69, 1965e: 353, 1965g: 20, 1966c: 226, 1967e: 215, 1968b: 144, 1970d: 233, 1971g: 192, 1972k: 295, 1977b: 150, 1977e: 283; Spahr 1981; Wichmann 1954: 521; Wood, S. L. 1957: 1273. (**tx**) Anderson, W. H. & Anderson 1971: 3; Aulmann 1911; Eggers 1920: 41, 1922a: 174, 1927a: 190, 1929e: 49, 1930a: 41, 124; Hagedorn 1905a: 413, 1907a: 261, 1907b: 111, 1910a: 152, 1912a: 341–343, 1913a: 255, 1913b: 19–21; Keler 1928: 29; Nunberg 1952: 20, 1962j: 235, 1978: 104; Powell, W. 1980: 29; Schaufuss 1897a: 210; Schedl 1935d: 95, 1939a: 468, 1941d: 403, 1950d: 15, 1950e: 211, 1952i: 7, 1952j: 3, 1953d: 69, 1953f: 242, 1954d: 872, 1954e: 51–71, 1955f: 259, 1957d: 15, 84, 1961e: 127, 1962j: 235–236, 1962k: 1098, 1964e: 64, 1965g: 20, 1971f: 151, 1977b: 150.

camerunus Hagedorn 1910b: 9. Syntypes ♀; Kamerun; MNB, Berlin. Synonymy: Schedl 1957d: 15.

Notes: (3) Eggers 1920: 124 (*ustulatus* Hagedorn, nomen nudum, synonymy).

References: (**cn**) Anonymous 1953b: 31, 1953j: 25; Aulmann 1913: 1–126; Chevalier 1931; Ghesquiere 1933a; Cowdery 1914: 36–58, 1918: 42–51; Green 1916: 608–636; Gregory 1954; Hagedorn 1913a; Kleine 1932a: 307. (**ec**) Anonymous 1953j: 25. (**hb**) Anonymous 1959i: 18; Hagedorn 1913a; Kleine 1932a: 307; Thompson, G. H. 1963: 71. (**ds**) Chevalier 1931; Gardner 1957a; Ghesquiere 1933a; Hagedorn 1910d: 99, 1913a; Kleine 1913b: 160, 1914b: 312, 1932a: 307; Mayne & Donis 1960: 104, 1962: 316; Roberts 1960b: 35, 1960e, 1960f; Thompson, G. H. 1960, 1963: 71; Wood, S. L. 1957e: 1273. (**tx**) Eggers 1920: 124, 1927a: 190, 1929e: 449; Hagedorn 1910a: 152, 1910b: 9, 1912a: 342–343, 1913b; Schedl 1950d: 15, 1950e: 211, 1952j: 3, 11–12, 1953g: 242, 1954d: 872, 1954e: 51, 1955f: 259, 1957d: 15, 1962j: 235.

camerunus rugosus Eggers 1920: 41. Holotype ♀; Soppo in Kamerun; MNB, Berlin.

References: (**tx**) Eggers 1920: 41.

altalis Schedl 1966f: 115. Holotype ♀; Bolivien, Campo Grande, Dept. Cainguas, Misiones; ZSSM, München.

Distribution: South America (Bolivia).

References: (**tx**) Schedl 1966f: 115, 1979c: 17.

amanicus Hagedorn 1910b: 11. Holotype ♀; Amani, Deutsch-Ostafrika; Hamburg Museum, lost.

Figures: Nunberg 1963a: pl. 4, figs. 5–8, Schedl 1962j: 299.

Distribution: Africa (Burundi/ Cameroon/ Fernando Poo/ Ghana/ Kenya/ Tanzania/ Uganda/ Zaire).

Hosts: *Anthonota macrophyllum*, *Beilschmiedia louisii*, *Fagara* sp., *Ficus* sp., *Hypericum lanceolatum*, *Ibuga* sp., *Lovoa trichilioides*, *Radlkofera* sp.

Notes: (3) Schedl 1962j: 298 (*mkulumusius* Hagedorn, nomen nudum, synonymy).

References: (**hb**) Roberts 1969: 130; Schedl 1962j: 298. (**ds**) Hagedorn 1910d: 98; Kleine 1913b: 160, 1914b: 322; Schedl 1959p: 25, 1962j: 298, 1971e: 2, 1972e: 283; Spahr 1981. (**tx**) Browne 1970: 572; Eggers 1920: 124, 1923a: 179, 1927c: 101, 1932d: 299, 1940d: 142; Hagedorn 1910a: 152, 1910b: 11; Nunberg 1963a: 15, pl. 4, 1963b: 15; Schedl 1937b: 403, 1939a: 468, 1941d: 404, 1953g: 243, 1955b: 275–276, 1955f: 259, 1957d: 84, 1962j: 298–299, 1962k: 1098.

tanganjikaensis Schedl 1937b: 403. Lectotype ♀;

N.W. Tanganjika-Sees; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 249. Synonymy: Schedl 1962j: 298.

References: (**ds**) Mayne & Donis 1962: 323; Schedl 1971g: 194. (**tx**) Schedl 1937b: 403, 1941d: 404, 1953g: 243, 1962j: 298, 1979c: 249.

amanicus ominosus Schedl 1962j: 301. Holotype ♀; Kamerun; Schedl Collection in NHMW, Wien.

Notes: (3) Apparently an aberration of *amanicus*, status doubtful.

References: (**tx**) Schedl 1962j: 301, 1965g: 20.

ambasinotatus Schedl 1978c: 306. Holotype ♀; Ecuador, verst. O. des Andes, Santo Domingo, 600 m; Schedl Collection in NHMW, Wien.

Distribution: South America (Ecuador).

References: (**tx**) Schedl 1978c: 306.

ambasipennis Schedl 1957d: 89. Holotype ♀; Congo Belge; Kivu, Hambe-Bitale, Kivu route Tshibinda-Bunyakiri, 1000 m, Yangambi; MRCB, Tervuren.

Figures: Nunberg 1963b: pl. 5, figs. 5–8, Schedl 1962j: 220.

Distribution: Africa (Zaire).

Hosts: *Brillantaisia* sp., *Carapa grandiflora*, *Entandrophragma excelsum*, *Ficus* sp., *Pachystela laurentii*, *Parinari holstii*, *Pentadesma lebrunii*, *Ritchiea appressaliana*, *Turraecanthus africana*.

References: (**hb**) Schedl 1962j: 219. (**ds**) Mayne & Donis 1962: 315; Schedl 1962j: 219. (**tx**) Nunberg 1963b: 17, pl. 5; Schedl 1957d: 89, 1962j: 219–220, 1979c: 18.

ambasiusculus Eggers 1920: 41. Lectotype ♀; Joh. Albrechtshöhe and Soppo, Kamerun; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 18.

Distribution: Africa (Cameroon/ Fernando Poo/ Gabon/ Ghana/ Ivory Coast/ Zaire).

Hosts: Many listed by Schedl 1962j: 224–226, Browne 1963a: 240. Also, *Macrolobium* sp.

References: (cn) Anonymous 1953j: 25; Cachan 1957: 15. (ce) Anonymous 1953j: 25; Schedl 1962j: 222. (hb) Browne 1963a: 240; Jones, Roberts, & Baker 1959: 13; Roberts 1969: 131; Schedl 1962j: 222; Webb & Jones 1957: 25–42. (ds) Browne 1963a: 240, 1980c: 486; Mayne & Donis 1960: 104, 1962: 315; Schedl 1961m: 84, 1962h: 60, 1964e: 69, 1971g: 192; Thompson, G. H. 1963: 70. (tx) Eggers 1920: 41–45; Schedl 1950e: 211, 1951f: 40, 1954d: 871, 1954e: 51, 1957d: 88, 1962j: 88, 222, 1979c: 18.

amphicauda Browne 1986c: 666. Holotype ♀; New Guinea: Fak fak to Nagoya, Japan, imported; BMNH, London.

Distribution: New Guinea.

Hosts: *Hopea* sp. log.

References: (tx) Browne 1986c: 666.

amphicranoides Hagedorn 1908: 379. Syntypes ♀; Sumatra, Si-Rambe and Mentawai-si-Oban (Modigliani); MNB, Berlin.

Figures: Numberg 1978: 104.

Distribution: Asia (India/ Malaya), Indonesia (Borneo, Mentawai, Sumatra), Philippine Islands.

Hosts: *Artocarpus elasticus*, *A. kunstleri*, *A. scortechini*, *Dipterocarpus* sp., *Parartocarpus* sp., *Shorea* sp.

References: (cn) Ishikura 1966. (hb) Browne 1936a, 1941, 1966. (ds) Beeson 1961: 302; Browne 1936a, 1961c: 154, 1980c: 484; Hagedorn 1910d: 98; Handlirsch 1925: 691; Ishikura 1966; Kleine 1913b: 160, 1914b: 286; Ohno et al. 1987: 87; Schedl 1936d: 2, 1961c: 70, 1971f: 148. (tx) Eggers 1922b, 1923a: 204, 1927c: 95–96; Hagedorn 1908: 379, 1910a: 152, 1910b; Nunberg 1959a: 414, 1978: 104; Schedl 1935b: 402–403, 1937e: 543, 1940: 440–441, 1942d: 42, 1951i: 44, 1954a: 140–141, 1954c: 159–160, 1979c: 19; Schroder 1925: 691.

amphicranoides var. *latecavatus* Eggers 1927c: 95. Syntypes ♀; Mount Banahao und Los Banos (Luzon), und Subaan (Mindoro); not given.

References: (ds) Schedl 1966b: 46. (tx) Eggers 1927c: 95.

amphicranoides *parvior* Browne 1981b: 601. Holotype ♀; Wasag (Philippines) to Nagoya (Japan), imported; BMNH, London.

References: (ds) Browne 1984c: 448, 1986a: 90. (tx) Browne 1981b: 601.

amplexicauda Hagedorn 1910b: 9. Syntypes 2 ♀; Sumatra et Java; Hamburg Museum, lost.

Figures: Nobuchi 1978a: pl. 2.

Distribution: Asia (Malaya), Indonesia (Borneo, Java, Sumatra), Philippine Islands.

Hosts: *Balanocarpus hemeii*, *Dryobalanops aromatica*, *Hopea* sp., *Shorea* spp.

Notes: (3) Browne 1974b: 538 (described male).

References: (hb) Browne 1941, 1961c: 154. (ds) Beaver & Browne 1978: 602; Browne 1961c: 154, 1981b: 599; Hagedorn 1910d: 98; Kleine 1913b: 160, 1914b: 286, 288; Nobuchi 1978a: 18; Schedl 1936d: 2, 1965g: 22, 1966b: 46, 1966g: 31, 1975a. (tx) Browne 1974b: 538; Hagedorn 1910b: 9; Nobuchi 1978a: pl. 2, 1983: 302; Schedl 1937e: 543, 1939e: 332, 1942a: 170, 1960i: 110, 1975a: 456, 1979c: 19.

borneensis Eggers 1927c: 97. Lectotype ♀; Borneo, je I Type on Sandakan un Sarawak; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 44. Synonymy: Schedl 1960h: 110.

References: (tx) Eggers 1927c: 97; Schedl 1960h: 110, 1979c: 44.

analis Schedl 1973e: 89. Holotype ♀; Sydney, New South Wales; Schedl Collection in NHMW, Wien.

Distribution: Australia (New South Wales).

References: (tx) Schedl 1973e: 89, 1979c: 19.

angolensis Schedl 1959p: 25. Holotype ♀; Angola: Dundo; MRCB, Tervuren.

Distribution: Africa (Angola).

References: (ds) Ferreira 1965: 1120; Schedl 1959p: 19, 25. (tx) Schedl 1959p: 25, 1962j: 301, 1979c: 20.

angustior Eggers 1925: 158. Holotype ♀; Birma (Tenasserim); USNM, Washington.

Distribution: Asia (Burma).

References: (tx) Anderson, W. H. & Anderson 1971: 4; Beeson 1929: 239–240; Eggers 1925: 158.

anisopterae Browne 1983a: 558. Holotype ♀; Tg. Usau (West Irian) to Nagoya (Japan), imported; BMNH, London.

Distribution: New Guinea.

Hosts: Mersawa log.

References: (ds) Browne 1986a: 94, 1986b: 333. (tx) Browne 1983a: 558, 1986a: 94.

annectens Schedl 1957d: 88. Holotype ♂; Congo Belge: Kivu, route Tshibinda-Bunyakiri, Yangambi; MRCB, Tervuren.

Figures: Numberg 1963b: pl. 6, figs. 1–8, Schedl 1962j: 227.

Distribution: Africa (Tanzania/ Zaire).

Hosts: *Albizia gummifera*, *Hymenocardia ulmoides*, *Oxytigma oxyphyllum*, *Synsepalum subcordatum*, *Xylopia aethiopica*.

References: (hb) Schedl 1962j: 226. (ds) Browne 1975a: 759; Schedl 1962j: 226. (tx) Nunberg 1963b: 18–19, pl. 6; Schedl 1957d: 88, 1962j: 226–227, 1979c: 21.

- annexus** Schedl 1973e: 89. Holotype ♀; Papuan Highlands, Central District, New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1973e: 89, 1979c: 21.
- antaisaka** Schedl 1953d: 100. Lectotype ♀; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 22.
Figures: Schedl 1953d: 100 (female), 1977b: 156.
Distribution: Africa (South Africa), Madagascar.
Hosts: *Eucalyptus maculata*, *E. paniculata*, *E. robusta*, *Chrysophyllum boivinianum*, *Dalbergia pterocarpifolia*, *Eleocarpus* sp., *Eugenia* sp., *Homalium planiflorum*, *Pinus khasia*, *Trema orientalis*.
References: (cn) Anonymous 1970c: 14. (cc) Schedl 1977b: 156. (hb) Schedl 1977b: 156. (ds) Anonymous 1970c: 14; Schedl 1962j: 271, 1969d: 6, 1970d: 233, 1977b: 156. (tx) Schedl 1953d: 100, 1965c: 71, 1977b: 156, 1979c: 22.
- antanala** Schedl 1953d: 98. Lectotype ♀; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 22.
Figures: Schedl 1953d: 100 (female), 1977b: 126.
Distribution: Madagascar.
Hosts: *Eugenia* sp.
References: (hb) Schedl 1977b: 127. (ds) Schedl 1977b: 127. (tx) Schedl 1953d: 98, 1961e: 143, 1977b: 126–127, 1979c: 22.
- boeni** Schedl 1953d: 99. Lectotype ♀; Madagascar, Mt. Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 42. Synonymy: Schedl 1979c: 42.
References: (tx) Schedl 1953d: 99, 1961e: 143, 1979c: 42.
- apertus** Schedl 1939e: 355. Lectotype ♀; North Borneo: Kiong, near Mt. Kinabalu, 1300 feet, and Malaya: Perak, Trolak For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 22.
Distribution: Asia (Malaya), Indonesia (Borneo), Fiji Islands, New Guinea.
Hosts: *Agathis dammara*, *Artocarpus elasticus*, *A. sp.*, *Balanocarpus heimii*, *Dyera costulata*, *Eugenia* sp., *Koompassia mallacensis*, *Palaeium* sp., *Paratocarpus* sp., *Pentaspadon* sp., *Shorea leprosula*, *S. uliginosa*.
Notes: (3) Browne 1955: 355 (described male). This is apparently a synonym of *perforans* (DEB).
References: (cn) Mathur & Singh 1961a: 40; Yunis & Hua 1980: 230. (hb) Browne 1961c: 143. (ds) Beeson 1961: 302; Browne 1961c: 143; Mathur & Singh 1961a: 40; Schedl 1959c: 168; Yunis & Hua 1980: 230. (tx) Browne 1955: 355; Schedl 1939e: 355, 1955b: 281, 285, 1979c: 22.
- apiculatus** Schedl 1942a: 190. Holotype ♀; Malaya, Kepong; BMNH, London.
Distribution: Asia (Malaya).
Hosts: *Dipterocarpus baudii*.
References: (ds) Browne 1961c: 113. (tx) Schedl 1942a: 190.
- aplanatideclivis** Schedl 1942c: 191. Lectotype ♀; Fiji Is., Javerni; Schedl Collection in NHMW, Wien.
Distribution: Fiji Islands.
Hosts: *Persea americana*.
References: (cn) Ebeling 1959; Lever 1940a: 38–42. (ds) Browne 1974a: 65; Ebeling 1959. (tx) Schedl 1942c: 191, 1950f: 40, 1955b: 308, 1979c: 23.
- approximatus** Schedl 1951i: 77. Syntypes 2 ♀; Java, Batoerraden, G. Slamet, and Malaya Peninsula, Selangor, Kepong; Schedl Collection in NHMW, Wien.
Figures: Nunberg 1978: 106.
Distribution: Asia (Malaya), Indonesia (Java), New Guinea.
Hosts: *Dryobalanops oblongifolia*, *Rhodamnia trinervia*, *Shorea leprosula*, *S. macroptera*, *Swietenia macrophylla*, *Vitex pubescens*.
References: (bv) Gray, B. 1975c. (cc) Banerjee 1983. (hb) Browne 1961c: 113; Gray, B. 1974c. (ds) Browne 1961c: 113, 1984a: 150. (tx) Nunberg 1978: 106–107; Schedl 1939e: 351, 1951i: 77, 1953c: 290, 1964c: 298, 1979c: 23.
- potens** Schedl 1964c: 298. Holotype ♀; New Guinea: Star Range, 1260 m; RNH, Leiden.
Synonymy: Wood 1989: 176.
References: (tx) Schedl 1964c: 298; Wood, S. L. 1989: 176.
- aquilus** Blandford 1894d: 109. Syntypes 6 ♀; Japan: Oyayama and Hitoyosi in Kiushiu, and near Kashiwagi; BMNH, London.
Distribution: Asia (Fujian, Human in China/Japan/ Korea/ Taiwan).
Hosts: *Abies* sp., *Acer rufinerve*, *Cercidiphyllum japonicum*, *Chamaecyparis obtusa*, *Cleyera japonica*, *Cryptomeria japonica*, *Machilus* sp., *Mallotus japonicus*, *Pinus densiflora*, *P. massoniana*, *Quercus mongolica grosseserrata*, *Styrax japonicus*.
References: (cn) Murayama 1954a: 10; Shiraki 1952. (ds) Blandford 1894c; Cho 1957; Choo 1983: 104; Choo & Woo 1985: 166; Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 260, 1934a: 172; Ko 1969: 284; Murayama 1930b: 20, 1936a: 130, 1937b: 375, 1948: 2, 143, 1949a: 13, 1949c: 102, 1950b: 1295, 1951c: 5, 1954a: 10, 1954b: 175, 1955: 99, 104; Nobuchi 1966d: 28, 1967: 21, 1985c: 23; Shiraki 1952; Yin, Huang, & Li 1984: 165. (tx) Blandford 1894d: 109; Choo 1983: 104; Hagedorn 1910a: 152; Murayama 1930b: 20–31, 1936a: 130, 1937b: 375, 1950b: 1295, 1954b: 175, 1955: 99, 104; Niisima 1910a: 13; Nobuchi 1966d: 28; Schedl 1934f: 1645; Yin, Huang, & Li 1984: 165.
- arcturus** Samuelson 1981: 69. Holotype ♀; Hawaii: S. Kona; BPBM, Honolulu.
Figures: Samuelson 1981: 60.
Distribution: Hawaiian Islands (Hawaii).

- References: (tx) Samuelson 1981: 60.
- aries** Schedl 1969b: 215. Holotype ♀; Awande, Eastern District Highlands, New Guinea; CSIRO, Canberra.
Distribution: New Guinea.
References: (tx) Schedl 1969b: 215–216, 1979c: 25.
- armiger** Schedl 1953e: 28. Lectotype ♀; Fukien, Kuatun; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 26.
Figures: Nürnberg 1959a: pl. 16, figs. 1–2.
Distribution: Asia (Fujian, Yunnan in China).
Hosts: *Castanopsis* sp., *Lithocarpus* sp.
References: (ds) Yin, Huang, & Li 1984: 156. (tx) Nürnberg 1959a: 414; Schedl 1953e: 28, 1955b: 306, 1955h: 45, 1979c: 26; Yin, Huang, & Li 1984: 156.
- armillatus** Schedl 1933d: 199. Holotype ♀; Pangil, Lagima Prov., Luzon; Schedl Collection (1979c: 26) in NHMW, Wien.
Distribution: Philippine Islands (Luzon).
References: (ds) Schedl 1966b: 46. (tx) Nobuchi 1983: 302; Schedl 1933d: 199, 1979c: 26.
- armipennis** Schedl 1953e: 27. Lectotype ♀; Fukien, Kuatun; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 26.
Distribution: Asia (Fujian, Yunnan in China).
Hosts: *Castanopsis* spp., *Lithocarpus* sp., *Quercus* sp.
References: (ds) Yin, Huang, & Li 1984: 156. (tx) Schedl 1953e: 27, 1955h: 45, 1979c: 26; Yin, Huang, & Li 1984: 156.
- artecylindrus** Schedl 1942a: 197. Lectotype ♀; Malaya, Perak, Trolak F.R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 27.
Distribution: Asia (Malaya).
Hosts: *Cinnamomum* sp.
Notes: (3) Schedl 1960h: 110 (cited this as a synonym of *pseudocylindricus*).
References: (tx) Schedl 1942a: 197, 1950g: 895, 1960h: 110, 1979c: 26–27.
- ashuensis** Murayama 1954b: 193. Holotype ♀; Ashu, Kyoto pref.; Murayama Collection in USNM, Washington.
Distribution: Asia (Japan).
Hosts: *Castanea crenata*.
References: (ds) Murayama 1954b: 193; Nobuchi 1985c: 23. (tx) Murayama 1954b: 193.
- asper** Eggers 1933b: 30. Holotype ♀; Franz. Guayana (Nouveau Chantier); MNHN, Paris.
Distribution: North America (Costa Rica/Panama), South America (Brazil/ Cayenne/ Colombia/ Venezuela).
Hosts: *Couma macrocarpa*, *Pithacellobium pinnatum*, *Theobroma cacao*, *Toulicia pulvinata*, *Virola warburgii*.
References: (hb) Wood, S. L. 1982b: 812. (ds) Blackwelder 1947: 779; Schedl 1960a: 78; Wood, S. L. 1982b: 812. (tx) Eggers 1933b: 30; Wood, S. L. 1972e: 196, 1982b: 812.
- amoenus* Schedl 1948f: 282. Holotype ♀; Costa Rica, Hamburgfarn, Reventazon, Ebene Limon; Schedl Collection in NHMW, Wien.
Synonymy: Wood 1972e: 196.
References: (ds) Schedl 1973d: 157. (tx) Schedl 1948f: 282, 1979c: 18; Wood, S. L. 1972e: 196.
- asperipunctatus** Eggers 1933b: 35. Holotype ♀; Franz. Guayana (Rivière Lannier, Tumuc Humac); MNHN, Paris.
Distribution: South America (Cayenne).
References: (ds) Blackwelder 1947: 779. (tx) Eggers 1933b: 35, 1934b: 27.
- aserrimus** Schedl 1975a: 457. Holotype ♀; Borneo: Sarawak; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Borneo).
References: (tx) Schedl 1975a: 457, 1979c: 28.
- assimilis** Eggers 1927b: 405. Syntypes 3 ♀; Sumatra (Mt. Singalang und Si Rambe); MCC, Genova and Eggers Collection (USNM, Washington or NHMW, Wien?).
Distribution: Indonesia (Sumatra).
References: (tx) Eggers 1927b: 405; Schedl 1934d: 89–90, 1955b: 305.
- associatus** Schedl 1976a: 73. Holotype ♀; Brasilien; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
References: (tx) Schedl 1976a: 73.
- astutus** Schedl 1954a: 154. Holotype ♀; Java; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java).
References: (tx) Schedl 1954a: 154, 1979c: 29.
- atratus** Eichhoff 1875: 201. Holotype ♀; Japan; Hamburg Museum, lost.
Figures: Nakane et al. 1963: 384, Nobuchi 1966d: pl. 4, Nürnberg 1978: 108.
Distribution: Asia (Burma/ Fujian in China/ Japan/ Korea/ Malaya/ Taiwan/ Vietnam), Indonesia (Borneo, Java, Sumatra), New Guinea, North America (introduced: Florida, Georgia, Maryland, Tennessee, Virginia, West Virginia), Philippine Islands.
Hosts: Many hosts listed in Choo 1983: 105. *Abus hirsuta*, *A. japonica*, *Betula schmidtii*, *Morus* spp., *Pinus* spp., *Ulmus japonica*.
References: (ay) Murayama 1933a: 2. (bv) Choo, Woo, & Park 1988. (cn) Anonymous 1980g; Clausen 1931; Murayama 1954a: 11; Shiraki 1952. (ce) Banno, Mikata, & Kodama 1983: 445; Yoon et al. 1982. (hb) Yoon et al. 1982. (ds) Anonymous 1980g; Atkinson, Rabaglia, & Bright 1990: 94; Atkinson et al. 1991: 160; Cho 1957; Choo 1983: 104; Choo & Woo 1985: 166; Choo, Woo, & Park 1983: 176, 1988; Clausen 1931; Hagedorn 1910d: 99; Hill, D. S. 1987: 341; Kleine 1913b: 160, 1914b: 260, 1934a; Ko 1969: 284; Ku, K. 1964; Murayama 1930b: 20, 1933b: 2, 1934d: 507, 1936a: 130, 1936b: 116, 1937b: 374, 1950d: 1295, 1951a: 6, 1954a: 11, 1954b: 175, 1955: 99; Nakane et al.

- 1963: 384; Nobuchi 1966d: 28, 1967: 21; Schedl 1960e: 172; Shiraki 1952; Yin, Huang, & Li 1984: 172. (**tx**) Atkinson, Rabaglia, & Bright 1990: 94; Blandford 1894d; Choo 1983: 104; Eggers 1930d: 178, 1941b: 222; Eichhoff 1875: 201–202, 1877a: 120, 1878b: 324; Hagedorn 1910a: 152; Murayama 1930b: 20–24, 31, 1933a: 31–34, 1933b: 14–16, 1934c: 299, 1934d: 505–512, 1936a: 130–131, 1937b: 374, 1950b: 1295, 1954b: 175 1955: 99; Nakane et al. 1963: 384; Nisima 1909: 157; Nobuchi 1966d: 28, pl. 4; Nunberg 1978: 108–109; Schedl 1934f: 1645, 1955h: 45; Strohmeier 1911: 32; Yin, Huang, & Li 1984: 172. (**ms**) Matsumura 1931.
- aurilegulus** Schaufuss 1897b: 112. Holotype ♀; Amazonas: Bragance (Oberthur); Hamburg Museum, lost.
Distribution: South America (Brazil).
References: (**ds**) Blackwelder 1947: 779; Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 337. (**tx**) Eggers 1931a: 21, 1933b: 29; Hagedorn 1910a: 152; Schaufuss 1897b: 112.
- australis** Schedl 1980b: 185. Holotype ♀; Queensland, Rocky Scrob [Australia]; Schedl Collection in NHMW, Wien.
Distribution: Australia (Queensland).
References: (**tx**) Schedl 1980b: 185.
- baculum** Beeson 1929: 247. Holotype ♀; Upolu: Malololelei, 2000 ft.; BMNH, London.
Distribution: Samoan Islands.
References: (**ds**) Beeson 1938b: 291. (**tx**) Beeson 1929: 247; Schedl 1951k: 139.
- balbalanus** Eggers 1927c: 95. Holotype ♀; Philippinen: Luzon, Provinz Mountain, Balbalan; Eggers Collection, in NHMW, Wien.
Distribution: Philippine Islands (Luzon).
References: (**ds**) Schedl 1966b: 47. (**tx**) Eggers 1927c: 95; Nobuchi 1983: 302; Schedl 1979c: 32.
- bambesanus** Eggers 1940c: 238. Holotype ♀; Congostaat: Bambesa; MRCB, Tervuren.
Figures: Nunberg 1963b: pl. 7, figs. 6–7.
Distribution: Africa (Zaire).
References: (**ds**) Nunberg 1961a: 330; Schedl 1962k: 1099. (**tx**) Eggers 1940c: 238; Nunberg 1963b: 21, pl. 7; Schedl 1962j: 330, 1962k: 1099.
- barbatoides** Schedl 1971c: 377. Holotype ♀; Malaya, Kelantan, Pahi; BMNH, London.
Distribution: Asia (Malaya).
References: (**tx**) Schedl 1971c: 377–378.
- barumbuensis** Eggers 1924: 109. Lectotype ♀; Barumbu im Congogegebiet; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 35.
Distribution: Africa (Ghana/ Nigeria/ South Africa/ Zaire), Madagascar.
Hosts: *Cola nitida*, *Ficus* sp., *Leptonychia bantangensis*, *Piptadeniastrum africanum*, *Sterculia rhinopetala*, *Theobroma cacao*.
References: (**cn**) Chevalier 1931; Chesquiere 1933a: 31–36, 74, 1933b: 781–786; Kemner 1924: 1–33. (**hb**) Schedl 1962j: 286. (**ds**) Chevalier 1931; Chesquiere 1933a: 31–36, 74; Roberts 1969: 131; Schedl 1962j: 286; Wichmann 1954: 521. (**tx**) Eggers 1924: 109; Schedl 1950d: 31, 1953d: 70, 1957e: 882, 1962j: 286, 1964k: 313, 1965c: 74, 1977b: 195, 1979c: 35.
robertsi Browne 1963b: 247. Holotype ♀; Nigeria: Abuja, Doma For. Res.; BMNH, London.
Synonymy: Schedl 1964k: 313.
References: (**tx**) Browne 1963b: 247; Schedl 1964k: 313.
- barumbuensis mendosus** Schedl 1965c: 74. Holotype ♀; Madagascar, Montagne d'Ambre; Schedl Collection in NHMW, Wien.
References: (**tx**) Schedl 1965c: 74, 1977b: 196, 1979c: 35.
- basalis** Schedl 1972e: 292. Holotype ♀; Ghana, Ashanti Region, Kumasi, Nhissu, 320 m, N 6 43, W 1 36; NHMB, Budapest.
Distribution: Africa (Ghana).
References: (**tx**) Schedl 1972e: 292.
- batoensis** Eggers 1923a: 178. Holotype ♀; Batoe Inseln (Tanah Masa); Coll. "Natura Artis Magistra" in Amsterdam.
Distribution: Indonesia (Batu Island).
References: (**tx**) Eggers 1923a: 178, 1927c: 101; Schedl 1935f: 270.
- beckeri** Bright 1972d: 84. Holotype ♀; Hardwar Gap, 4000 feet, St. Andrew Parish, Jamaica; CNCI, Ottawa.
Figures: Bright 1972d: 75, 95.
Distribution: Antilles Islands (Jamaica).
References: (**ds**) Bright 1985c: 173. (**tx**) Bright 1972d: 75, 84, 95, 1985c: 173; McNamara 1977: 200.
- betsileo** Schedl 1965c: 74. Holotype ♀; Madagascar, Montagne d'Ambre; Schedl Collection in NHMW, Wien.
Distribution: Madagascar.
References: (**tx**) Schedl 1965c: 74, 77, 1977b: 196, 1979c: 37.
- bezanozano** Schedl 1961e: 152. Holotype ♀; Madagascar, Perinet; IRSM, Madagascar.
Distribution: Madagascar.
Hosts: *Alchornea* sp., *Vernonia* sp.
References: (**hb**) Schedl 1977b: 165. (**ds**) Schedl 1977b: 165. (**tx**) Schedl 1961e: 152, 1977b: 165, 1979c: 37.
- biconicus** Eggers 1928c: 97. Holotype ♀; Brazil; USNM, Washington.
Figures: Pedrosa-Macedo & Schonherr 1985: 25.
Distribution: South America (Argentina/ Brazil/ Paraguay).
Hosts: *Guettarda* sp., *Mangifera indica*.
References: (**cn**) Mumford 1961: 38; Silva, Cayao, & Castro 1959: 1. (**hb**) Viana 1964: 123. (**ds**) Blackwelder 1947: 779; Mumford 1961: 38; Nun-

berg 1958a: 481, 1961: 224, 1964a: 236; Pedrosa-Macedo & Schonherr 1985: 25; Schedl 1960a: 79, 1966f: 87, 1967d: 2, 1970e: 88, 1973d: 157, 1976a: 53; Viana 1964: 123. **(tx)** Anderson, W. H. & Anderson 1971: 6; Eggers 1928c: 97; Nunberg 1958a: 481, 1959a: 415–416, 1964: 236; Pedrosa-Macedo & Schonherr 1985: 25; Schedl 1951h: 285–286, 1952a: 445–446, 1958f: 35.

bicinctus Schedl 1972g: 69. Holotype ♀; Brazil, Jacareacanga, Para; Schedl Collection in NHMW, Wien, preoccupied by Schedl 1965. Synonymy: Wood 1989: 176.

References: **(ds)** Schedl 1976a: 53. **(tx)** Schedl 1972g: 69, 1974f: 338, 1977b: 212, 1979c: 37; Wood, S. L. 1989: 176.

bicinctulus Schedl 1974f: 338. Holotype ♀; Brazil, Jacareacanga, Para; Schedl Collection in NHMW, Wien, automatic. Synonymy: Wood 1989: 176.

References: **(tx)** Schedl 1974f: 338; Wood, S. L. 1989: 176.

bidentatus (Motschulsky) 1863: 514 (*Phloeotrogus*). Holotype ♀; published as Du continent indien, type labeled India Occidentale; IZM, Moscow.

Figures: Kumar & Chandra 1977: 40, Nobuchi 1978a:pl. 2, Nunberg 1959a:pl. 27, figs. 1–4, Wood 1960a: 53.

Distribution: Africa (Kenya/ Mozambique/ Tanzania), Asia (Burma/ Andaman Islands in India/ Malaya/ Thailand/ Vietnam), Australia, Bismarck Islands, Indonesia (Borneo, Celebes, Java, Sumatra), Madagascar, Micronesia (Palau Islands), New Guinea, Philippine Islands.

Hosts: *Afzelia bijuga*, *Agathis* sp., *Anisoptera* sp., *Avicennia* sp., *Canarium euphyllum*, *Carapa* sp., *Dipterocarpus turbinatus*, *Excaecaria agallocha*, *Garcinia merguensis*, *Intsia bijuga*, *Mimusops littoralis*, *Pterocarpus dalbergioides*, *Rhizophora mucronata*, *Shorea acuminata*, *Sonnieatia apelata*, *Stephegyne diversifolia*, *Terminalia bialata*, *Xylocarpus gangeticus*, *X. granatum*.

Notes: (3) Kumar & Chandra 1977: 32 (described male).

References: **(cn)** Gray, B. & Wylie 1974. **(ec)** Beeson 1922c. **(hb)** Beeson 1922c; Gray, B. 1968: 311; Gray, B. & Wylie 1974; Schedl 1962j: 282. **(ds)** Beeson 1915: 8–11, 1922c: 497, 1930: 228, 1941: 392–393, 1961: 303; Bhasin, Roonwal, & Singh 1958: 68; Browne 1935a: 4, 1941: 60, 68, 1961a: 305, 1966: 251; Chadwick & Nikitin 1968; Corbett & Gater 1926: 22; Gemminger & Harold 1872: 2692; Gray, B. 1968: 311; Hagedorn 1910d: 99; Kalshoven 1959: 162; Kleine 1913b: 168, 1914b: 270, 1934a: 172; Nobuchi 1978a: 26; Ohno, Yoneyama, & Nakazawa 1982a: 4, 1982b: 8, 1987a: 88, 1987b: 94; Ohno, Yoshioka, Yoneyama, & Nakazawa 1988a: 93; Ohno, Yoshioka, Uchida, Yoneyama, & Tsukamoto 1989: 61; Roonwal 1954: 40;

Schedl 1936d: 4, 1937f: 1, 1942d: 6, 1950g: 897, 1955b: 278, 1958i: 215, 1962i: 72, 1962k: 282, 1964c: 306, 1964i: 248, 1965e: 353, 1965g: 25, 1966b: 48, 1966g: 31, 1968e: 263, 1969d: 4, 1971f: 148, 1972a: 144, 1977a: 164; Wood, S. L. 1960a: 51–55. **(tx)** Beeson 1930: 228; Blandford 1896a: 21; Eggers 1922b: 174, 1923a: 130, 1925: 153, 1927a: 199, 1930d: 191; Eichhoff 1878b: 505–506; Hagedorn 1905: 414, 1910a: 152, 155, 1910b: 9–11; Kumar & Chandra 1977: 32, 40; Motschulsky 1863: 514; Nobuchi 1978a:pl. 2, 1983: 302; Schaufuss 1905: 72 (reprint p. 3); Schedl 1935j: 1, 1952k: 162, 1953d: 70, 1960h: 107, 1962j: 282–283, 1977b: 164; Wood, S. L. 1960a: 51, 53, 1969c: 119.

riehli Eichhoff 1878b: 346. Holotype ♀; Celebes Insula Asiatica; IRSNB, Brussels. Synonymy: Schedl 1962j: 282.

Notes: (3) Eggers 1930d: 190 (described male).

References: **(cn)** Beeson 1916: 1–5; Ishikura 1966; Mathur & Singh 1961a: 61; Roonwal 1954: 40. **(hb)** Browne 1935a, 1941, 1961c: 139; Kalshoven 1959c: 162. **(ds)** Beeson 1919: 1–23, 1930, 1961: 308; Browne 1935a, 1961c: 139–140; Hagedorn 1910d: 110; Ishikura 1966; Kalshoven 1959c: 162; Kleine 1913b: 162, 1914b: 295, 1934a: 175; Mathur & Singh 1961a: 61; Roonwal 1954: 40; Schedl 1936d: 4, 1937f: 15, 1962i: 72. **(tx)** Beeson 1930: 77, 253; Eggers 1927a: 199, 1927b: 399, 1930d: 190–191; Eichhoff 1878b: 346; Hagedorn 1910a: 156, 1910b: Nunberg 1959a: 436; Schedl 1942d: 6, 1950g: 897, 1955b: 278, 1960h: 107, 1962j: 282.

laeviusculus Blandford 1896a: 21. Holotype ♀; Indo-China: Mytho; BMNH, London. Synonymy: Schedl 1960i: 108.

References: **(cn)** Beeson 1915: 8–11; Stebbing 1914: 603. **(ec)** Beeson 1922c: 498; Stebbing 1914: 603. **(hb)** Beeson 1922c: 498; Stebbing 1914: 602–603. **(ds)** Beeson 1922c: 498; Hagedorn 1910d: 106; Kleine 1913b: 168, 1914b. **(tx)** Blandford 1896a: 21; Hagedorn 1910a: 155, 1910b; Schedl 1950g: 897, 1958i: 215, 1960i: 108, 1962j: 282; Stebbing 1914: 603.

stephegyinis Hopkins 1915b: 58 (*Boroxylon*). Holotype ♀; Calapan, Philippine Islands; USNM, Washington. Synonymy: Wood 1960a: 54.

References: **(ds)** Kleine 1934a: 178. **(tx)** Hopkins 1915b: 58–59; Schedl 1952k: 162, 1962j: 282; Wood, S. L. 1960a: 54.

brevidentatus Eggers 1930d: 190. Holotype ♀; Andamanen Inseln; FRI, Dehra Dun. Synonymy: Schedl 1960i: 107.

References: **(cn)** Mathur & Singh 1961b: 28. **(ds)** Beeson 1930, 1961: 303; Kleine 1934a: 172; Mathur & Singh 1961b: 28. **(tx)** Beeson 1930: 228; Eggers 1930d: 190; Schedl 1960i: 107, 1962j: 282, 1979c: 46.

quadridens Eggers 1930d: 191. Holotype ♀; Borneo; FRI, Dehra Dun. Synonymy: Wood 1989: 176.

References: (tx) Eggers 1930d: 191; Schedl 1962j: 559; Wood, S. L. 1989: 176.

birmanus Eggers 1930d: 200. Holotype ♀; Burma (North Pegu Division); FRI, Dehra Dun.
Distribution: Asia (Burma/ Malaya/ Thailand).

Hosts: *Dolichandrone stipulata*, *Iutisia palembanica*, *Xylia dolabriformis*.

References: (cn) Mathur & Singh 1961b: 96. (hb) Beaver & Browne 1975: 298; Browne 1961c: 154. (ds) Beaver & Browne 1975: 298; Beeson 1930: 228 (reprint p. 52), 1961: 303; Browne 1961c: 154–155; Mathur & Singh 1961b: 96. (tx) Eggers 1930d: 200 (reprint p. 24); Schedl 1958b: 100, 1979c: 40.

bispinus Nobuchi 1981b: 147. Holotype ♀; Kumano, Takimoto, Wakayma; Nobuchi Collection, Ibaraki.

Figures: Nobuchi 1981b: 153.

Distribution: Asia (Honshu in Japan).

Hosts: *Castanopsis cuspidata*.

References: (cc) Kielczewski & Wisniewski 1983. (tx) Nobuchi 1981b: 147, 153.

biuncus Browne 1984d: 96. Holotype ♀; New Guinea: Stony L. A.; BMNH, London.

Distribution: New Guinea.

Hosts: *Protium* sp.

References: (tx) Browne 1984d: 96.

blandus Schedl 1954c: 160. Lectotype ♀; Borneo; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 42.

Distribution: Indonesia (Borneo).

References: (tx) Schedl 1954c: 160, 1979c: 42.

bodoanus Reitter 1913a: 82. Syntypes 3 ♀; Ost-sibirien: Sotka-gora; HNMB, Budapest.

Distribution: Asia (E USSR).

References: (hb) Stark 1952: 436. (ds) Stark 1952: 436. (tx) Eggers 1923a: 202; Reitter 1913a: 82; Schedl 1934f: 1645; Stark 1952: 436.

bolivianus Eggers 1943a: 385. Holotype ♀; Bolivia; USNM, Washington.

Distribution: South America (Bolivia).

References: (tx) Anderson, W. H. & Anderson 1971: 7; Eggers 1943a: 385.

borneensis Browne 1986a: 92. Holotype ♀; Borneo: Bintulu (Sarawak) to Nagoya, Japan, imported; BMNH, London.

Distribution: Indonesia (Borneo).

Hosts: *Dipterocarpus* sp. log.

References: (tx) Browne 1986a: 92.

brevicollis Browne 1984d: 97. Holotype ♀; New Guinea: Gumi; BMNH, London.

Distribution: New Guinea.

Hosts: *Castanopsis* sp.

References: (tx) Browne 1984d: 97.

brunneus Browne 1981b: 601. Holotype ♀; Tatan (Sarawak, Borneo) to Nagoya (Japan), imported; BMNH, London.

Distribution: Indonesia (Sarawak in Borneo).

References: (tx) Browne 1981b: 601.

bryanti Sampson 1919: 110. Holotype ♀; Borneo, Sarawak (Mt. Matang); BMNH, London.

Distribution: Indonesia (Sarawak in Borneo).

References: (ds) Sampson 1919: 110. (tx) Sampson 1919: 110.

buxtoni Beeson 1929: 243. Holotype ♀; Samoa, Upolu: Malololelei, 2000 ft.; BMNH, London.

Figures: Wood 1960a: 65.

Distribution: Cook Islands, Micronesia (Caroline Islands, Palau Islands), Samoan Islands.

References: (ds) Beeson 1938b: 191; Schedl 1972b: 267; Wood, S. L. 1960a: 51. (tx) Beaver & Maddison 1990: 1373; Beeson 1929: 243; Schedl 1951k: 139; Wood, S. L. 1960a: 51, 65.

cachoeirinhae Schedl 1951m: 125. Syntypes ♂?; Brasilien, Bahia, Cachoeirinha-Una; Schedl Collection in NHMW, Wien (Schedl 1979c: 49).

Distribution: South America (Brazil).

Notes: (1) Schedl 1979c: 49 (citation of holotype invalid). (3) Schedl 1951m: 125 (may be male of *majusculus*).

References: (tx) Schedl 1951m: 125, 1979c: 49.

cacuminatus Eggers 1928c: 98. Holotype ♀; Brasil (Amazonas-Gebiet); Hamburg Museum, lost? (see note 1).

Distribution: South America (Brazil).

Notes: (1) Schedl 1979c: 49 (holotype in Schedl Collection in NHMW, Wien; if this is the holotype, it must have been on loan to Eggers when Schedl obtained it).

References: (ds) Blackwelder 1947: 779. (tx) Eggers 1928c: 98, 1933b: 33; Schedl 1979c: 49.

californicus Wood 1975b: 399. Holotype ♀; Stanford University, Palo Alto, California [USA]; CAS, San Francisco.

Distribution: North America (California, Oregon in USA).

Notes: (3) This is an obvious importation; its origin is unknown.

References: (ds) Wood, S. L. 1982b: 838. (tx) McNamara 1984: 759; Wood, S. L. 1975b: 399, 1982b: 838.

calvus Schedl 1942a: 187. Holotype ♀; Borneo; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Borneo).

References: (tx) Schedl 1942a: 187, 1979c: 50.

canarii Browne 1984a: 155. Holotype ♀; Pomio (New Britain) to Nagoya (Japan), imported; BMNH, London.

Distribution: New Guinea.

Hosts: *Canarium* sp.

References: (ds) Ohno et al. 1988a: 93, 1989: 61. (tx) Browne 1984a: 155.

canarivorus Browne 1986a: 96. Holotype ♀; New Guinea: Fak fak to Nagoya, Japan, imported; BMNH, London.

Distribution: New Guinea.

Hosts: *Canarium* sp. log.

References: (tx) Browne 1986a: 96.

cancellatus Eggers 1936e: 89. Holotype ♀; Java (Batoerraden, G. Slamet); ZMA, Amsterdam.

Figures: Numberg 1959a: pl. 17, figs. 1–3.

Distribution: Indonesia (Java).

Hosts: *Castanea argentea*, *Neesia altissima*, *Plectronia* sp., *Symplocos* sp., *Turpinia pomifera*.

References: (cc) Kalshoven 1960b. (hb) Kalshoven 1959c: 147, 1960a: 120. (ds) Kalshoven 1959c: 147; Schedl 1965g: 24. (tx) Eggers 1936e: 89; Numberg 1959a: 417; Schedl 1942d: 6, 1951i: 43, 1954a: 140, 1954c: 155, 1958k: 145, 1965g: 24, 1979c: 51.

cancellatus prouniciatus Eggers 1936e: 90. Holotype ♀; Java: "G. Tangkoebon Frahoë," 4000–5000 Fuss, Preanger; ZMA, Amsterdam.

Notes: (1) Schedl 1979c: 51 (lectotype designation invalid because a type had previously been designated).

References: (tx) Eggers 1936e: 90–91; Schedl 1958k: 145, 1979c: 51.

canus Niisima 1909: 161. Holotype ♀; Sapporo, Hokkaido, Japan; Nobuchi Collection, Ibaraki. Distribution: Asia (Japan).

References: (cn) Anonymous 1980g; Murayama 1954a: 19. (ds) Anonymous 1980g; Kleine 1913b: 160, 1914b: 261; Murayama 1954a: 19; Nobuchi 1985c: 24. (tx) Hagedorn 1910a: 152; Murayama 1930: 25, 31; Niisima 1909: 161; Schedl 1934f: 1646.

caraibicus Eggers 1941a: 103. Holotype ♀; Guadeloupe; USNM, Washington.

Figures: Numberg 1959a: pl. 17, figs. 4–6.

Distribution: Antilles Islands (Dominica/ Guadeloupe/ Trinidad), North America (Costa Rica/ Panama), South America (Bolivia/ Brazil/ Colombia/ Venezuela).

Hosts: *Ochroma* sp., *Theobroma cacao*.

References: (hb) Wood, S. L. 1982b: 813. (ds) Bright 1981c: 156, 1982b: 165, 1985c: 173; Schedl 1976a: 53; Wood, S. L. 1982b: 813. (tx) Anderson, W. H. & Anderson 1971: 9; Bright 1985c: 173; Eggers 1941a: 103; Numberg 1959a: 417; Wood, S. L. 1972e: 197, 1982b: 813.

variabilis Schedl 1948f: 281. Syntypes ♀; Bolivia: Rio Aguacatal, Colomb. W. Coc.; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 176.

Notes: Schedl 1979c: 264 (citation of holotype invalid).

References: (tx) Schedl 1948f: 279, 281, 1979c: 264; Wood, S. L. 1989: 176.

trinidadensis Schedl 1961a: 530. Holotype ♀; Trinidad, River Estate; BMNH, London. Synonymy: Wood 1972e: 197.

Notes: (3) Schedl 1966f: 118 (described male). References: (tx) Schedl 1961a: 530, 1966f: 118, 1979c: 256; Wood, S. L. 1972e: 197.

carinensis Eggers 1923a: 180. Holotype ♀; Carin Cheba (Birma?), 900–1100 m; MCG, Genova. Distribution: Asia (Burma).

References: (tx) Eggers 1923a: 180.

carinulatus Eggers 1920: 41. Lectotype ♀; Mauritius; Schedl Collection in NHMW, Wien. Distribution: Africa (Mauritius Island).

References: (ds) Schedl 1969d: 11. (tx) Eggers 1920: 41; Schedl 1962j: 330, 1979c: 53.

caudatus Schedl 1957d: 110. Holotype ♀; Congo Belge; Yangambi; MRCB, Tervuren.

Figures: Numberg 1963b: pl. 8, figs. 5–8, Schedl 1962j: 562.

Distribution: Africa (Zaire).

Hosts: *Antrocaryon micraster*, *Klainedoxa gabonensis*, *Musanga cecropioides*, *Pterocarpus soyauxii*.

References: (hb) Schedl 1962j: 562. (ds) Schedl 1962j: 562. (tx) Numberg 1963b: 22, pl. 8; Schedl 1957d: 84, 110, 1962j: 562, 1979c: 55.

cavatus Browne 1980c: 487. Holotype ♀; Donggala (Celebes) to Nagoya (Japan), imported; BMNH, London.

Distribution: Indonesia (Celebes).

Hosts: *Diospyros ebenum*.

References: (ds) Browne 1980c: 487, 1983a: 555.

cavuloides Browne 1984c: 451. Holotype ♀; Tg. Mani (Sarawak) to Nagoya (Japan), imported, BMNH, London.

Distribution: Indonesia (Sarawak in Borneo).

Hosts: *Dipterocarpus* sp.

References: (ds) Olmo, Yoneyama, & Nakazawa 1982b: 8. (tx) Browne 1984c: 451.

cavulus Browne 1974b: 538. Holotype ♀; Malaya: Kepong, Forest Research Institute Insectary; BMNH, London.

Distribution: Asia (Malaya).

References: (tx) Browne 1974b: 538.

celsoides Hagedorn 1908: 379. Holotype ♀; Australia; IRSNB, Brussels.

Distribution: Australia.

References: (ds) Hagedorn 1910d: 100; Kleine 1913b: 160, 1914b: 298. (tx) Hagedorn 1908: 379, 1910a: 152.

celsus Eichhoff 1868a: 400. Syntypes ♀; America boreali [USA]; Hamburg Museum, lost.

Figures: Bright 1976d: 132, Gagne & Kearby; Numberg 1959a: pl. 17, figs. 7–8, pl. 18, figs. 1–2.

Distribution: North America (Arkansas, Connecticut, District of Columbia, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Louisiana, Maryland, Michigan, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Texas, Vermont, Virginia, West Virginia in USA).

Hosts: *Carya* spp.

References: (ay) Gagne & Kearby 1979. (bv) Gagne & Kearby 1974, 1978, 1979; Meixner 1937:

1218; Roling & Kearby 1975b: 1977; Tumbow & Franklin 1980. (**cn**) Blackman 1950; Chamberlin 1924, 1939: 454; Doane et al. 1936; Felt 1906: 446, 1916: 76, 1923: 89, 1926: 247, 277, 1930a: 247, 277, 1942; Felt & Rankin 1932: 260; Herrick 1935: 221; Hopkins 1896d: 249, 1897b: 150, 1904a: 39; Hubbard 1897b: 24; Kowal 1949a: 12–13; Morris 1955: 139; Packard 1890: 92, 297; Pierson 1927: 72; Rhoads 1924: 151; Roling & Kearby 1977; Smith, J. B. 1900: 363; Swaine 1918a: 126, 128. (**ee**) Batra 1963b: 217; Chamberlin 1939: 454; Felt 1906: 446; Roling & Kearby 1977; Steinhaus 1946: 403. (**hb**) Baker, W. L. 1972: 270; Beal & Massey 1945: 154–155; Bellevoye 1898; Blackman 1922b: 117–120, 1950; Blackman & Stage 1924: 151–153; Bright 1976d: 136; Chamberlin 1939: 454; Chittenden 1890; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Drooz 1985: 373; Dyakowski 1911; Felt 1906: 446, 1926: 247, 277, 1930a: 247, 277; Felt & Rankin 1932: 260; Gagne & Kearby 1974, 1978, 1979; Herrick 1935: 221; Hopkins 1904a: 39, 1905a: 384; Hubbard 1897a: 422, 1897b: 24; Lengerken 1954: 312; Packard 1890: 297; Pierce 1907: 291; Pierson 1927: 72; Skaife 1954: 253; Swaine 1918a: 126, 128; Wood, S. L. 1982b: 833. (**ds**) Anonymous 1926c: 520; Baker, W. L. 1972: 270; Beal & Massey 1945: 154–155; Beaulne 1941; Blackman 1922b: 117–120, 1950; Blatchley & Leng 1916: 623; Bright 1968b: 1310, 1976d: 136; Britton 1920a; Chamberlin 1939: 454; Chittenden 1890; Deyrup 1981b: 6; Deyrup & Atkinson 1987a: 65; Dodge 1938: 13, 54; Drooz 1981b: 6; Felt 1926: 247, 277, 1930a: 247, 277; Felt & Rankin 1932: 260; Gagne & Kearby 1978, 1979; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 100; Hamilton 1895: 346, 378; Harrington 1884a; Henshaw 1885: 148; Hopkins 1893a: 135, 1893b: 211; Hubbard & Schwarz 1878a: 666; Kirk 1969, 1970; Kleine 1913b: 160, 1914b: 393; Leng 1920: 342; Leonard 1928: 520; MacGillivray, A. & Houghton 1902; Schedl 1971f: 148; Smith, J. B. 1900: 363, 1910: 402; Swaine 1909: 151; Tumbow & Franklin 1980; Wenzer 1915: 188; Wheeler 1922: 521; Wood, S. L. 1982b: 833. (**tx**) Beal & Massey 1945: 154–155; Blackman 1922b: 117–120; Blatchley & Leng 1916: 623; Bright 1968b: 1310, 1976d: 132, 136; Chamberlin 1939: 454; Dodge 1938: 13, 54; Eggers 1928c: 96, 1931a: 21; Eichhoff 1868a: 400, 1875: 203, 1878b: 399; Gagne & Kearby 1979: 298; Hagedorn 1910a: 153; Hopkins 1915b: 62, 67; Hubbard 1897b: 22, 24; Jacques 1951: 353; LeConte 1868: 159, 1876: 359–360; Meixner 1937: 1218; Numberg 1959a: 418; Swaine 1909: 151, 1918a: 126, 128; Wood, S. L. 1982b: 833; Zimmermann 1868: 145.

biographus LeConte 1868: 160. Holotype ♂; Illinois [USA]; MCZ, Cambridge. Synonymy: Eichhoff 1878b: 399.

References: (**cn**) Felt 1906: 447. (**ds**) Gem-

minger & Harold 1872: 2685; Henshaw 1882: 269, 1885: 148; Hubbard & Schwarz 1878a: 666; Leng 1920: 342; Schwarz 1878d: 468, 666; Swaine 1909: 152. (**tx**) Eichhoff 1878b: 399–400; Hopkins 1896: 249; LeConte 1868: 159–160, 1876: 359–360, 1878a: 468; Swaine 1909: 152.

chujoi Schedl 1951i: 73. Syntypes ♀; Formosa; Schedl Collection in NHMW, Wien.

Distribution: Asia (Taiwan).

Notes: (1) Schedl 1979c: 57 (citation of holotype invalid).

References: (**ds**) Nobuchi 1967: 21. (**tx**) Schedl 1951i: 73–74, 1979c: 57.

ciliatiformis Schedl 1953f: 81. Lectotype ♀; Brisbane, Australia, in imported logs of Borneo cedar; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 57.

Distribution: Asia (Malaya), Indonesia (Borneo), New Guinea.

Hosts: *Pasania sundaica*, *Shorca balanocarpoides*.

References: (**bv**) Gray, B. 1974c. (**hb**) Browne 1961c: 115; Gray, B. 1974c. (**ds**) Browne 1961c: 115, 1986c: 662. (**tx**) Schedl 1953c: 290, 1953f: 81, 1979c: 57.

ciliatus Eggers 1940: 141. Holotype ♀; Java (Tjibodas, G. Gedeh); Kalshoven Collection.

Distribution: Asia (Fujian in China), Australia, Indonesia (Java).

Hosts: *Eupatorium* sp.

References: (**ds**) Schedl 1979a: 158. (**tx**) Eggers 1940: 141–142; Schedl 1942d: 5, 1951i: 67, 1952c: 64, 1953f: 81, 1954a: 140, 1958k: 148, 1979c: 57.

cinctipes Schedl 1979g: 105. Holotype ♀; Papua, Bulolo, Morobe Dist., New Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (**tx**) Schedl 1979g: 105.

circumspinosus Schedl 1972i: 52. Holotype ♀; New Guinea (NE), Umboi I., 1 km N Awelkon, 600 m; BPBM, Honolulu.

Distribution: New Guinea.

Notes: (3) Schedl 1975f: 363 (described male).

References: (**tx**) Schedl 1972i: 52, 1975f: 363, 1979c: 58.

clerodendronae Schedl 1952i: 17. Holotype ♀; Congo Belge: Kivu, Mulungu; MRCB, Tervuren. Figures: Numberg 1963b: pl. 9, figs. 1–4, Schedl 1962j: 266.

Distribution: Africa (Chana/ Tanzania/ Zaïre).

Hosts: *Acacia molissima*, *Albizia* sp., *Brillantaisia* sp., *Cinnamomum camphora*, *Clerodendron* sp., *Klainedoxa gabonensis*, *Myrianthus holstii*, *Trichilia* sp.

References: (**hb**) Beaver & Loytyniemi 1985a: 74; Browne 1963a: 240. (**ds**) Beaver & Loytyniemi 1985a: 74; Browne 1963a: 240; Mayne & Donis 1962: 317; Nonveiller 1984: 41; Schedl

- 1962j: 266. **(tx)** Nunberg 1963b: 23, pl. 9; Schedl 1952i: 17–18, 1957d: 84, 98, 1962j: 266, 1962k: 1099, 1979c: 58.
- clerodendronae alpinus* Schedl 1957d: 98. Syntypes ♀; Hembé-Bitale; not given in original description, apparently in MRCB, Tervuren and NHMW, Wien.
- Notes: (1) Schedl 1979c: 59 (citation of holotype invalid).
- References: **(hb)** Roberts 1969: 131; Schedl 1962j: 266, **(ds)** Schedl 1962h: 60, 1962k: 1099, 1965e: 354. **(tx)** Nunberg 1963b: 24; Schedl 1957d: 98, 1962j: 266, 1979c: 59.
- clerodendronae morosus* Schedl 1962j: 267. Holotype ♀; Congo Belge: Yangambi; Schedl Collection in NHMW, Wien.
- References: **(tx)** Schedl 1962j: 267, 1979c: 59.
- cognatus** Blandford 1896a: 19. Syntypes ♀; Indo-China: Mytho and Saigon; BMNH, London.
- Figures: Nobuchi 1978a:pl. 4.
- Distribution: Africa (Cameroon), Asia (Burma/ Andaman Islands, Bengal, Nicobar Islands in India/ Malaya/ Thailand/ Vietnam), Australia, Fiji Islands, Indonesia (Borneo, Java, Sumatra), New Guinea, Philippine Islands, Solomon Islands (Rennell Island).
- Hosts: *Bombax insigne*, *Bruguiera parviflora*, *Canarium euphyllum*, *Diospyros oocarpa*, *Dipterocarpus turbinatus*, *Excaecaria agallocha*, *Heritiera fomes*, *Lagerstroemia hypoleuca*, *Mimusops littoralis*, *Planchonia andamanica*, *Parishia insignis*, *Pterocarpus dalbergioides*, *Rhizophora apiculata*, *R. mucronata*, *Salmania insignis*, *Sterculia alata*, *S. campanulata*, *Terminalia* spp.
- Notes: (3) Hagedorn 1912a: 343 (described male).
- References: **(cn)** Auhmann 1913: 1–126; Green 1916: 608–636; Hagedorn 1913a; Ishikura 1966; Kleine 1932a: 307; Mathur & Singh 1960c, 1961a: 10, 1961b: 28; Yunus & Hua 1980: 230. **(ec)** Neger 1911a: 52; Roberts 1977a: 254. **(hb)** Browne 1961c: 144–145; Hagedorn 1913a; Kalshoven 1959c: 141, 1963; Kleine 1932a: 307; Roberts 1977a: 254. **(ds)** Beeson 1930: 229, 1961: 303; Bhasin, Roonwal, & Singh 1958; Browne 1961a: 304, 1961c: 144, 1968c: 113, 1974a: 65; Choo & Woo 1983; Hagedorn 1910d: 100, 1913a; Ishikura 1966; Kalshoven 1959c: 141, 1963; Kleine 1913b: 160, 1914b: 274, 279, 1932a: 307, 1934a: 172; Mathur & Singh 1960c, 1961a: 10, 1961b: 28; Nobuchi 1978a: 40; Ohno, Yoneyama, & Nakazawa 1982a: 4, 1982b: 8, 1987: 94; Ohno et al. 1987: 88, 1988a: 93, 1989: 61; Roberts, H. 1977a: 254; Schedl 1936d: 3, 1937f: 15, 1959a: 502, 1961c: 70, 1962b: 184, 1962i: 74, 1962k: 1099, 1964i: 248, 1965g: 23, 1966b: 48, 1966g: 31, 1968e: 263, 1969c: 52, 1971c: 362, 1972a: 145, 1974c: 262; Yunus & Hua 1980: 230. **(tx)** Beeson 1930: 53, 229; Blandford 1896a: 19; Hagedorn 1910a: 153, 1912a: 343–344; Nobuchi 1978a:pl. 4, 1983: 302; Schedl 1931c: 346, 1937e: 543, 1939e: 333, 1942d: 7, 1953b: 124, 1954a: 141, 1955b: 281, 283, 285, 1958i: 215, 1959a: 502, 1965g: 23, 1962k: 1099.
- collis Niisima** 1910a: 12. Syntypes 3 ♀; Kumano-taira bei Karuisawa, Henshih, Japan; Nobuchi Collection, Ibaraki.
- Distribution: Asia (Japan).
- References: **(ds)** Murayama 1954b: 176; Nobuchi 1955c: 24. **(tx)** Murayama 1954b: 176; Niisima 1910a: 12; Schedl 1934f: 1645.
- commixtus** Blandford 1898b: 208. Lectotype ♀; Bugaba, Chiriqui, Panama; BMNH, London.
- Distribution: North America (Costa Rica/ Panama), South America (Colombia).
- Hosts: *Pouteria* sp., *Theobroma cacao*.
- References: **(hb)** Wood, S. L. 1982b: 814. **(ds)** Blackwelder 1947: 779; Hagedorn 1910d: 100; Kleine 1913b: 100, 1914b: 371; Schedl 1960a: 77; Steinhausen 1956: 48; Wood, S. L. 1982b: 814. **(tx)** Blandford 1898b: 208; Hagedorn 1910a: 153; Schedl 1940a: 367, 1951m: 123, 1961i: 229, 1979c: 60; Steinhausen 1956: 48; Wood, S. L. 1982b: 814.
- comparabilis** Schedl 1957d: 91. Holotype ♀; Congo Belge: Kivu, Hembé-Bitale, and Ruanda: Ihembé; MRCB, Tervuren.
- Figures: Nunberg 1963b:pl. 10, figs. 1–4.
- Distribution: Africa (Zaire).
- Hosts: *Alchornea hirtella*, *Ficus* sp., *Pachystela laurentii*, *Strombosia scheffleri*.
- References: **(ec)** Schedl 1958d: 192. **(hb)** Schedl 1962j: 256. **(ds)** Schedl 1962j: 256. **(tx)** Nunberg 1963b: 24, pl. 10; Schedl 1957d: 91, 1957e: 881, 1962j: 256, 1979c: 60.
- concentus** Wood 1974a: 39. Holotype ♀; Tapanti, Cartago, Costa Rica; Wood Collection.
- Distribution: North America (Costa Rica), South America (Venezuela).
- Hosts: *Alexa imperatricia*, *Phoebe mexicana*.
- References: **(hb)** Wood, S. L. 1982b: 817. **(ds)** Wood, S. L. 1982b: 817. **(tx)** Wood, S. L. 1974a: 39, 1982b: 817.
- conditus** Schedl 1971c: 379. Holotype ♀; India: Dehra Dun, Mussoorie; Schedl Collection in NHMW, Wien.
- Distribution: Asia (Uttar Pradesh in India/ Nepal).
- References: **(ds)** Schedl 1973b: 211. **(tx)** Schedl 1971c: 379, 1979c: 61.
- confluens** Schedl 1966f: 113. Holotype ♀; Argentinien, Prov. Buenos Aires; Schedl Collection in NHMW, Wien.
- Distribution: South America (Argentina/ Brazil/ Uruguay).
- References: **(ds)** Schedl 1976a: 54, 1979e: 58. **(tx)** Schedl 1966f: 113, 1979c: 61.
- congruens** Schedl 1966f: 114. Holotype ♀; Bolivien; Schedl Collection in NHMW, Wien.
- Distribution: South America (Bolivia).

- References: (tx) Schedl 1966f: 114, 1979c: 63.
- conidens** Eggers 1936d: 632. Holotype ♀; Mysore: Wynaad; BMNH, London.
Distribution: Asia (Mysore in India).
Hosts: *Coffea* sp.
References: (tx) Eggers 1936d: 632–633.
- conradti** Hagedorn 1910b: 8. Syntypes ♀; Kamerun; MNB, Berlin.
Figures: Nunberg 1963b: pl. 5, figs. 1–4, Schedl 1962j: 228.
Distribution: Africa (Cameroon/ Equatorial Guinea/ Gabon/ Ghana/ Ivory Coast/ Nigeria/ South Africa/ Zaïre).
Hosts: Many listed by Schedl 1962j: 230–231. *Canarium* sp., *Macrobium* sp., *Terminalia ivorensis*.
References: (ce) Schedl 1962j: 227. (hb) Ghesquiere 1933a: 31–34, 1933b: 780; Jones, Roberts, & Baker 1959: 13; Roberts 1969: 131; Schedl 1962j: 227. (ds) Aulmann 1912: 40–41; Browne 1980b: 382; Cachan 1957: 15, 43–53; Hagedorn 1910d: 100; Kleine 1913b: 160, 1914b: 312, 1928: 307; Schedl 1962j: 227, 1965g: 21, 1979b: 416; Webb & Jones 1957: 25–38; Wichmann 1954: 521. (tx) Browne 1970: 571; Eggers 1920: 42–43, 1932c: 23, 1933g: 18; Hagedorn 1910a: 153, 1910b: 8–9, 1913a: 19–20, 1913b: 255; Schedl 1950d: 15, 1950e: 211, 1952i: 7, 1954d: 871, 1954e: 51, 64, 67, 1957d: 84, 88, 1962j: 227–228, 1963i: 63, 1965g: 21.
- ambasius** Hagedorn 1912a: 342. Holotype ♀; Kamerun; Hamburg Museum, lost. Synonymy: Schedl 1963i: 63.
References: (cn) Anonymous 1953j: 25; Aulmann 1913: 1–126; Ghesquiere 1933a; Hagedorn 1913a; Kleine 1932a: 307; Thompson, G. H. 1960. (ce) Anonymous 1953j: 25. (hb) Browne 1963a: 240; Green 1916: 608–636; Hagedorn 1913a; Kleine 1932a: 307. (ds) Browne 1963a: 240; Hagedorn 1913a; Kleine 1913b: 160, 1914b: 312, 1932a: 307; Roberts 1960b: 36, 1960e, 1960f; Schedl 1964e: 68, 1979b: 416. (tx) Eggers 1920: 41, 1931c: 18, 1932c: 23, 1933g: 18; Hagedorn 1912a: 342, 1913b; Nunberg 1963b: 17–18, pl. 5; Schedl 1950d: 15, 1950e: 211, 1953d: 97, 1954d: 871, 1954e: 50–51, 1957d: 84, 1962j: 227, 1963i: 63.
- carbonarius** Eggers 1927a: 190. Holotype ♀; Belg.-Congo (Haut-Uele; Moto); MRCB, Tervuren. Synonymy: Schedl 1962j: 223.
References: (tx) Eggers 1927a: 190, 1931c: 18, 1932c: 23, 1933g: 18; Schedl 1962j: 227.
- consobrinus** Eggers 1932d: 296. Holotype ♀; Congostaat (Haut-Uele; Moto); MRCB, Tervuren.
Figures: Nunberg 1963b: pl. 10, figs. 5–8.
Distribution: Africa (Uganda/ Zaïre).
Hosts: *Alstonia boonei*, *Beilschmiedia gilbertii*, *Celtis mildbraedii*, *C. zenkeri*, *Chlorophora excelsa*, *Kluya anthontheca*, *Milletia ferruginea*, *Oxystigma oxyphyllum*, *Scorodophloeus zenkeri*, *Trema guineensis*.
References: (ds) Browne 1973a: 281, 1980c: 486, 1984c: 450; Mayne & Donis 1962: 318; Schedl 1962j: 258. (tx) Eggers 1932d: 296–297; Nunberg 1963b: 25, pl. 10; Schedl 1937b: 403, 1941d: 380, 1950c: 205, 1950d: 29, 1962j: 258.
- continentalis** Eggers 1920: 42. Holotype ♀; Natal (Durban); MNB, Berlin.
Distribution: Africa (Natal in South Africa).
References: (tx) Eggers 1920: 42; Schedl 1962j: 330.
- convexicauda** Eggers 1932d: 303. Holotype ♀; Westafrica (Goldkuste); USNM, Washington.
Distribution: Africa (Ghana).
References: (tx) Anderson, W. H. & Anderson 1971: 10; Beeson 1935: 121; Eggers 1932d: 303–304, 1933b: 37; Schedl 1954e: 47, 1957d: 84, 1962j: 320.
- cornivorus** Murayama 1950b: 63. Holotype ♀; Irazuyama, Shikoku, Japan; Murayama Collection in USNM, Washington.
Distribution: Asia (Japan).
Hosts: *Carpinus laxiflora*, *Cornus controversa*.
References: (ds) Murayama 1954b: 176; Nobuchi 1985c: 24. (tx) Murayama 1950b: 63, 1954b: 176.
- cornutus** Schaufuss 1891: 17. Holotype ♀; Madagascar; Hamburg Museum, lost.
Distribution: Madagascar.
References: (ds) Alluaud 1900: 440; Fairmaire 1892b; Frappa 1933: 179; Hagedorn 1910d: 100; Kleine 1913b: 160, 1914b: 326; Schedl 1977b: 143. (tx) Anderson, W. H. & Anderson 1971: 10; Blandford 1898b: 207; Fairmaire 1892b; Hagedorn 1910a: 153, 1913b: 256; Schaufuss 1891: 17; Schedl 1953d: 69, 1977b: 143, 1979c: 65.
- corpulentus** Eggers 1930d: 198. Holotype ♀; Assam (Lakhimpur, Upper Dihing Reserve); FRI, Dehra Dun.
Distribution: Asia (Xizang [Tibet] in China/ Assam in India/ Nepal).
Hosts: *Acrocarpus fraxinifolius*, *Albizzia lebbek*, *Artocarpus chaplasha*, *Canarium euphyllum*, *Sterculia villosa*, *Vatica lanceaefolia*.
References: (cn) Mathur & Singh 1961a: 72, 1961b: 71; Roonwal 1954: 33. (ds) Beeson 1930: 55, 1961: 303; Bhasin, Roonwal, & Singh 1958; Kleine 1934a: 172; Mathur & Singh 1961a: 72, 1961b: 71; Roonwal 1954: 33; Schedl 1973b: 211. (tx) Beeson 1930: 55; Eggers 1930d: 198–199.
- costaricensis** Blandford 1898b: 210. Holotype ♀; Volcan Irazu, Costa Rica; BMNH, London.
Distribution: North America (Costa Rica/ Panama).
Hosts: *Phoebe mexicana*.
References: (hb) Wood, S. L. 1982b: 823. (ds) Blackwelder 1947: 779; Hagedorn 1910d: 101; Kleine 1913b: 160, 1914b: 271; Wood, S. L. 1982b:

823. (tx) Blandford 1898b: 210; Hagedorn 1910a: 153; Wood, S. L. 1979b: 136, 1982b: 823.
nevermanni Schedl 1935d: 93. Lectotype ♀; Costa Rica, Vara Blanca; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 165. Synonymy: Wood 1979b: 136.
 References: (ds) Blackwelder 1947: 780; Schedl 1966f: 77. (tx) Schedl 1935d: 93, 1979c: 165; Wood, S. L. 1979b: 136.
- costatomorphus** Schedl 1950g: 897. Lectotype ♀; ex imported logs of "Borneo cedar" at Brisbane, Australia, Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 67.
 Figures: Nobuchi 1978a: pl. 2.
 Distribution: Asia (Singapore), Indonesia (Borneo), Philippine Islands.
 Hosts: Borneo cedar, *Rhizophora* sp. seedlings.
 References: (ds) Nobuchi 1978a: 26; Schedl 1966g: 31, 1975a. (tx) Nobuchi 1978a: pl. 2, 1983: 302; Schedl 1950g: 897, 1975a: 458, 1979c: 67.
- costulatus** Eggers 1940d: 147. Holotype ♀; Java (Preanger, G. Tangkoeban Prahoë); Drescher Collection [Eggers cotype in NHMW, Wien].
 Distribution: Indonesia (Java).
 Notes: (1) Schedl 1979c: 67 (cited holotype in Schedl Collection when one already existed in the Drescher Collection).
 References: (tx) Eggers 1940d: 147–148; Schedl 1979c: 67.
- crenulatus** Eggers 1920: 117. Holotype ♀; Ostafrika; Hamburg Museum, lost.
 Distribution: Africa (Tanzania).
 References: (tx) Eggers 1920: 117, 1932d: 301; Schedl 1962j: 297.
- cribratus** Eggers 1940d: 145. Holotype ♀; West Java (Tjampea); Kalshoven Collection.
 Distribution: Indonesia (Java).
 References: (hb) Kalshoven 1959c: 150. (ds) Kalshoven 1959c: 150. (tx) Eggers 1940d: 145; Schedl 1979c: 68.
- cribripennis** Eggers 1927a: 191. Holotype ♀; Belg.-Congo (Sankuru); MRCB, Tervuren.
 Figures: Nunberg 1963b: pl. 11, figs. 1–2.
 Distribution: Africa (Zaire).
 Hosts: *Ouratea* sp.
 References: (ds) Ghesquiere 1933a: 31–35, 1933b: 781; Roberts 1969: 131; Schedl 1962j: 233. (tx) Eggers 1927a: 191, 1933b: 33, 1935c: 310; Nunberg 1963b: 26, pl. 11; Schedl 1962j: 233.
- crinitulus** Wood 1974a: 34. Holotype ♀; 40 km SE Socopo, Barinas, Venezuela; Wood Collection.
 Distribution: North America (Panama), South America (Venezuela).
 Hosts: *Hirtella triandra*.
 References: (tx) Wood, S. L. 1974a: 34.
- crinitus** Schedl 1962j: 301. Holotype ♀; Congo Belge; Hembe-Bitale; Schedl Collection in NHMW, Wien.
- Distribution: Africa (Nigeria/ Zaire).
 Hosts: *Anthonotha* sp., *Garcinia* sp., *Lovoa trichilioides*.
 References: (tx) Schedl 1962j: 301, 1979c: 69.
- nigericus** Browne 1970: 572. Holotype ♀; Nigeria: Boshi Extension Forest Reserve, 5000 ft.; BMNH, London. Synonymy: Schedl 1972p: 155, Wood 1989: 176.
 References: (tx) Browne 1970: 572; Schedl 1972p: 155.
- cruciatus** Schedl 1973c: 90. Holotype ♀; Vanapa River, Central District [New Guinea]; CSIRO, Canberra.
 Distribution: New Guinea.
 Hosts: *Dracontomeles* sp.
 References: (tx) Schedl 1973c: 90, 1979c: 70.
- cryptographus** (Ratzeburg) 1837: 160 (*Bostrichus*).
 Syntypes ♀; presumably sudlichen Deutschland; not located.
 Figures: Balachowsky 1949a: 226, 231, Grune 1979: 157, Pfeffer 1989a: pl. 8.
 Distribution: Asia (Siberia in E USSR), Europe (Austria/ Czechoslovakia/ Denmark/ Finland/ France/ Germany/ Greece/ Hungary/ Norway/ Poland/ Sweden/ W USSR).
 Hosts: *Populus* spp.
 References: (ay) Escherich 1923b: 488; Feytaud 1950a; Klimesch 1914: 215; Nunberg 1928: 140. (bv) Grune 1979: 157; Meixner 1937: 1217; Nuorteva 1956c: 58. (cn) Escherich 1923b: 488; Esterberg 1959; Feytaud 1950a; Grandi 1951; Kontkanen 1932: 63; Kovacevic 1957: 69; Muller 1912: 186; Nusslin 1913: 286; Rhumbler 1922: 328, 1927: 345; Schimitschek 1937c: 53; Wachtl 1901: 381; Wichmann 1927b: 360. (ce) Balazy & Michalski 1960; Bukowski 1930; Heqvist 1963: 155; Hirschmann & Wisniewski 1982, 1983; Jamnický 1957b: 20; Kangas 1940a, 1941, 1942a; Kielczewski 1976; Kielczewski, Moser, & Wisniewski 1983; Kielczewski & Wisniewski 1978, 1980b, 1983; Kleine 1908c: 219, 1909a: 49, 77, 1944: 72; Lundberg 1984; Neger 1911a: 50; Nosek 1959a: 118, 1959b: 87; Nuorteva 1957b: 68; Nusslin 1927: 345; Palmen 1946: 195; Pfeffer 1928b: 2, 1943b: 181; Pfeffer & Prihoda 1950: 3; Rnhm 1956b: 4; Sedlacek 1935a: 162; Slaby 1947: 375; Tudor 1969: 34; Vite 1952a: 107. (hb) Altum 1881c: 322; Bach 1864; Barbey 1901: 27, 105; Eggers 1899c: 291, 1908d; Eichhoff 1881a: 53, 276; Escherich 1923b: 488; Feytaud 1950a; Cornostaev 1916: 314; Grandi 1951; Györfi 1957; Henschel 1895a: 191; Karpinski 1933b: 30; Karpinski & Strawinski 1948: 156; Karsch 1883: 142; Lekander 1963b; Lengerken 1954: 311; Mjöberg 1906: 137–142; Nosek 1959a: 118, 1959b: 87; Nunberg 1929a: 110, 1929c: 121; Nuorteva 1956c: 58; Nusslin 1898: 275, 1913: 256, 1927: 345; Pfeffer 1942a: 3; Postner 1974: 465; Ratzeburg 1837: 130, 167, 1839: 157; Rhumbler 1922: 328, 1927:

- 345; Rupertsberger 1880: 232; Sedlacek 1935a: 162; Spessivtsev 1913a: 99; Stark 1926a: 336, 1952: 431; Vite 1952a: 107; Wachtl 1876a: 453, 1901: 381; Wichmann 1927b: 360. (**ds**) Acloque 1896; Andersch 1851; Barthe 1896; Bau 1888; Bedel 1888b; Bejer-Petersen & Jorunn 1977: 24; Benick 1921; Blanchere & Robert 1889; Borchert 1951; Brakman 1966b: 206; Brancsik 1871, 1906; Butovitsch & Heqvist 1947; Calver 1884, 1893; Carpentier & Delaby 1908; Chapuis & Candeze 1853; Dombrowsky 1887; Eggers 1904; Endrodi 1958b, 1981: 184; Escherich 1923b: 488, 1932b; Esterberg 1959; Eyquem 1891; Fjellberg 1966: 154; Gaubil 1849: 126; Gemminger & Harold 1872: 2687; Gomostaev 1917: 308–315; Gozis 1875: 80; Grune 1979: 156–157; Hagedorn 1910d: 101; Hansen, V. 1939, 1956, 1964: 463; Hellen 1947; Henschel 1895a: 191; Heyden 1876: 301; Heyden, Reitter, & Weise 1883: 182, 1891: 674, 1906: 713; Horion 1951, 1956: 123; Jansson 1935: 77; Jazentkovsky 1912: 292; Kangas 1940: 32–34, 1941: 359–365; Karpinski 1925: 216, 1931: 28, 1933b: 30; Karpinski & Strawinski 1948: 156; Kestercanek 1881a: 12; Klefbeck & Sjöberg 1960: 232; Kleine 1912a: 268, 1913a: 36, 1913b: 160, 1934a: 172; Kontkanen 1932: 68; Kovacevic 1957: 69; Kozikowsky 1921: 181; Kraatz 1869: 59; Krogerus 1925: 45; Kurenzov 1936b: 350; Lacordaire 1866: 381; Langhoffer 1915c: 158; Leksander 1963b: 96; Lentz 1857: 139; Lomnicki 1913b: 148; Lucht 1987: 279; Lundberg 1988; Lundblad 1950c: 117; Mahler 1987: 232; Mequignon 1938: 183–185; Negru 1966b: 402, 1968a: 456; Nunberg 1928b: 88, 110, 1954: 61, 1960b: 157; Nusslin 1898: 275; Palm 1959: 24, 353; Palmén 1946: 195; Pfeffer 1924a: 96, 1928b: 2, 1931b: 73, 1935: 159, 1989a: 87, pl. 8; Pittioni 1943: 176; Postner 1974: 465; Rapp 1934: 735; Ratzeburg 1837: 130, 167, 1839: 157; Redtenbacher 1858: 835, 1874: 380; Reitter 1869b: 155, 1894a: 91, 1916: 395; Roubal 1941: 274; Saalas 1931: 67; Sainte-Claire & Mequignon 1938: 449; Schaufuss 1915: 1238; Schaum 1859: 96, 1862: 101; Schedl 1980a: 19, 1981b: 94; Scheerpeltz & Winkler 1930: 258; Schilsky 1909: 189; Seidlitz 1872: 397, 1891a: 567, 1891b: 613; Stark 1926a: 336, 1926b: 104, 1926j: 127, 1927b: 89, 1931a: 26, 1936e: 142, 1952: 411; Stein 1868: 114; Stein & Weise 1877: 165; Tredl 1907: 19; Tressens 1952: 90; Tvermyr 1960: 121; Wachtl 1876a: 453; Wanka 1915: 213; Wichmann 1927a: 70. (**tx**) Acloque 1896; Bach 1854, 1864; Balachowsky 1949a: 224–226; Barbey 1901: 27, 105; Bedel 1888b; Bertolini 1872; Brancsik 1871; Carpentier & Delaby 1908; Chapuis & Candeze 1853; Dombrowsky 1887; Eggers 1927a: 189, 1927b: 401, 1930d, 1933f: 54; Eichhoff 1864b: 39, 1878b: 337, 1881a: 53, 276, 1883a: 115, 141; Endrodi 1957b; Escherich 1923b: 488; Fauvel 1889; Ferrari 1867a: 28, 31, 1867b: 114; Fleischer 1905, 1927; Formanek 1907: 53; Grune 1979: 157; Hagedorn 1910a: 153; Hansen, V. 1956, 1964: 463; Henschel 1895a: 191; Jacquelin du Val & Fairmaire 1868: 109; Karpinski & Strawinski 1948: 156; Kuhnt 1913: 1060; Lacordaire 1866: 381; Letzner 1891: 377; Lucht 1987: 279; Lundberg 1988; Meixner 1937: 1217; Negru 1966b: 402; Nunberg 1928a: 140, 1929c: 121, 1954: 61; Pfeffer 1932b: 21, 1942a: 3, 1955a: 195, 1989a: 87, p. 8; Portevin 1935: 330; Postner 1974: 465; Quaschik 1953: 35; Ratzeburg 1837: 130, 167, 1839: 157; Redtenbacher 1849: 790, 1858: 835, 1874: 380; Reitter 1894a: 91, 1913a: 83, 1916: 295; Rhumbler 1922: 328, 1927: 345; Rupertsberger 1880: 232, 1927: 345; Schedl 1934f: 1646, 1958f: 35, 1980a: 19, 1981b: 94; Schimitschek 1937c: 53–57; Schlechtendal & Wunsche 1879: 126; Seidlitz 1872: 397, 1891a: 567, 1891b: 613; Spessivtsev 1913a: 98–99, 1922a: 477, 491; Stark 1952: 431; Tieffenback 1860: 321. (**ms**) Escherich 1932b.
- villosus* Ratzeburg 1837: 160 (*Bostrichus*). Syn-types ♂; presumably sudlichen Deutschland; not located. Synonymy: Balachowsky 1949a: 226.
- References: (**ds**) Schilsky 1909: 189. (**tx**) Balachowsky 1949a: 226; Letzner 1891: 377; Ratzeburg 1837: 160.
- cuneiformis** Schedl 1958b: 104. Lectotype ♀; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 71. Distribution: Asia (Malaya). Hosts: *Shorea* spp.
- References: (**hb**) Browne 1961c: 123. (**ds**) Schedl 1971c: 364. (**tx**) Schedl 1958b: 104, 1979c: 71.
- cuneipennis** Schedl 1950d: 31. Holotype ♀; Congo Belge, Elisabethville; MRCB, Tervuren. Figures: Nunberg 1963b: pl. 12, figs. 1–4. Distribution: Africa (Angola/ Tanzania/ Zaire). References: (**hb**) Loytyniemi, Beaver, & Loytyniemi 1984. (**ds**) Beaver & Loytyniemi 1985a: 74; Ferreira 1965: 1122; Schedl 1959p: 20, 1962j: 286. (**tx**) Nunberg 1963b: 28, pl. 12; Schedl 1950d: 31, 1957e: 882, 1962j: 286, 1979c: 71.
- cuneolus** Eggers 1927c: 92. Holotype ♀; Philippines: Luzon, Prov. Laguna, Mt. Maquilung; USNM, Washington. Distribution: Philippine Islands (Luzon). References: (**ds**) Schedl 1966b: 50. (**tx**) Anderson, W. H., & Anderson 1971: 10; Eggers 1927c: 92–93, 1930d: 203, 1940d: 150; Nobuchi 1983: 302.
- curtidentis** Schedl 1961e: 156. Holotype ♀; Madagascar, Perinet; IRSM, Madagascar. Distribution: Madagascar. Hosts: *Ocotea laevis*. References: (**tx**) Schedl 1961e: 156, 1977b: 207, 1979c: 72.
- curvatus** Browne 1986a: 98. Holotype ♀; New Guinea: Fak fak to Nagoya, Japan, imported; BMNH, London.

- Distribution: New Guinea.
Hosts: *Hopcia* sp. log.
References: (tx) Browne 1986a: 98.
- cyclopus** Schedl 1940b: 440. Holotype ♀; Dutch New Guinea, Cyclops Mts., Mt. Lina, 3500–4000 ft.; BMNH, London.
Distribution: New Guinea.
Hosts: *Heritiera trifolia*.
References: (tx) Schedl 1940b: 435, 440–441, 1979c: 73.
- cylindromorphus** Eggers 1927: 96. Lectotype ♀; Philippines: Mindanao, Prov. Surigao, Surigao; USNM, Washington, designated by Anderson & Anderson 1971: 11.
Figures: Nobuchi 1978a:pl. 2.
Distribution: Asia (Malaya), Indonesia (Borneo), Philippine Islands (Mindanao).
Hosts: *Balanocarpus heimii*, *Shorea maxwelliana*.
References: (ds) Beaver & Browne 1978: 607; Browne 1961c: 157, 1980c: 483; Nobuchi 1978a: 13, 20; Schedl 1965g: 24, 1966b: 50. (tx) Anderson, W. H. & Anderson 1971: 11; Eggers 1927c: 96–97; Nobuchi 1978a:pl. 2, 1983: 302; Schedl 1933d: 192, 200, 1965g: 24, 1979c: 74.
- cylindrus** Schedl 1951i: 94. Lectotype ♀; Birma (?); Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 74.
Distribution: Asia (Burma).
References: (tx) Eggers 1927b; Schedl 1951i: 94, 1979c: 74.
- darwinii** Schedl 1972a: 148. Holotype ♀; Northern Territory: Darwin [Australia]; Schedl Collection in NHMW, Wien.
Distribution: Australia (Northern Territory).
References: (tx) Schedl 1972a: 148, 1979c: 75.
- declivis** Eichhoff 1869a: 280. Holotype ♀; Teapa, Tabasco, Mexico; Hamburg Museum, lost.
Figures: Nunberg 1959a:pl. 19, figs. 1–2.
Distribution: North America (Costa Rica/ Guatemala/ Tabasco, Veracruz in Mexico), South America (Guyana).
Notes: (1) Schedl 1979c: 76 (neotype designation invalid).
References: (hb) Wood, S. L. 1982b: 840. (ds) Atkinson & Equihua 1986a: 421, 1988: 102; Blackwelder 1947: 779; Blandford 1898b; Ferrer 1942; Gemminger & Harold 1872: 2685; Hagedorn 1903b: 546, 1910d: 161; Kleine 1913b: 160, 1914b: 355, 372; Schedl 1966f: 77, 1972g: 38; Wood, S. L. 1982b: 840. (tx) Blandford 1898b; Eichhoff 1869a: 280, 1878b: 401; Hagedorn 1903b: 546, 1910a: 153; Nunberg 1959a: 422; Schedl 1940a: 361, 1950i: 147, 1951a: 461, 1962p: 207, 1979c: 76; Wood, S. L. 1972e: 197, 1982b: 840.
- pseudoprocer** Schedl 1948f: 279. Holotype ♀; Guatemala; Schedl Collection in NHMW, Wien. Synonymy: Wood 1972e: 197.
- References: (tx) Schedl 1948f: 279, 1979c: 201; Wood, S. L. 1972e: 197.
- decumans** Schedl 1953c: 301. Lectotype ♀; Malaya, Kelantan; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 76.
Distribution: Asia (Malaya).
Hosts: *Dipterocarpus kunstleri*, *Shorea* spp.
References: (tx) Browne 1961c: 150. (ds) Browne 1961c: 150, 1986b: 333; Nunberg 1961b: 610. (tx) Schedl 1953c: 301, 1959a: 508, 1979c: 76.
- defensus** Blandford 1894d: 118. Holotype ♀; Japan, Sapporo; BMNH, London.
Figures: Nakane et al. 1963:pl. 192 (adult).
Distribution: Asia (Japan).
References: (bv) Choo, Woo, & Park 1988. (cn) Murayama 1954a: 25. (ds) Blandford 1894c; Choo, Woo, & Park 1988; Hagedorn 1910d: 101; Kleine 1913b: 160, 1914b: 260; Murayama 1936a: 132, 1954a: 24–25, 1954b: 177, 1955: 104; Nakane et al. 1963: 384; Nobuchi 1955c: 24. (tx) Blandford 1894d: 118; Eggers 1927c: 96; Hagedorn 1910a: 53; Murayama 1934c: 299, 1936a: 132, 1954b: 177, 1955: 104; Nakane et al. 1963: 384, pl. 192; Niisima 1909: 163; Schedl 1934f: 1646.
- deformatus** Browne 1974a: 70. Holotype ♀; Fiji: Viti Levu, Nandarivatu; BMNH, London.
Distribution: Fiji Islands.
References: (ee) Roberts 1977a: 255. (hb) Roberts 1977a: 255. (ds) Browne 1974a: 65, 70; Roberts 1977a: 255.
- demissus** Wood 1974a: 40. Holotype ♀; Rincon de Osa, Puntarenas, Costa Rica; Wood Collection.
Distribution: North America (Costa Rica).
Hosts: Small log.
References: (ds) Wood, S. L. 1982b: 822. (tx) Wood, S. L. 1974a: 40, 1982b: 822.
- densatus** Schedl 1979g: 106. Holotype ♀; Papua [New Guinea]: Bulolo, Morobe Dist., Upper Manki L. A.; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1979g: 106.
- denseseriatus** Eggers 1941b: 225. Holotype ♀; Fukien (Kuatun, 2300 m); Alexander König Museum, Bonn.
Distribution: Asia (Fujian in China).
References: (tx) Eggers 1941b: 225.
- densicornis** Schedl 1957d: 95. Holotype ♀; Congo Belge: Hembe-Bitale; MRCB, Tervuren.
Figures: Nunberg 1963b:pl. 12, figs. 5–8.
Distribution: Africa (Zaire).
Hosts: *Lovoa trichilioides*.
References: (hb) Schedl 1962j: 302. (ds) Schedl 1962j: 302. (tx) Nunberg 1963b: 29, pl. 12; Schedl 1957d: 95, 1962j: 302.
- dentatulus** Browne 1981a: 131. Holotype ♀; Kamdaru (New Ireland) to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.

- References: (ds) Ohno, Yoshioka, et al. 1988a: 93, 1989: 61. (tx) Browne 1981a: 131.
- dentatus Blandford** 1895a: 323. Syntypes ♀; Ceylon, Dikoya, Hadley tea Estate and Bogawantalawa, 4900–5200 ft.; BMNH, London. Distribution: Asia (India/ Malaya/ Sri Lanka). Hosts: *Gordonia zeylanica*. References: (cn) Kalshoven 1954: 13; Mathur & Singh 1960b: 20. (hb) Browne 1941. (ds) Beeson 1961: 304; Browne 1961c: 154; Hagedorn 1910d: 101; Kleine 1913b: 160, 1914b: 274; Mathur & Singh 1960b: 20; Schedl 1936j: 20, 1959a: 508. (tx) Blandford 1895a: 323; Hagedorn 1910a: 153; Schedl 1959a: 508, 1960b: 108.
- dentipennis Browne** 1983a: 558. Holotype ♀; Tatau (Sarawak) to Nagoya (Japan), imported; BMNH, London. Distribution: Indonesia (Sarawak in Borneo). Hosts: Seraya log. References: (ds) Browne 1983a: 558, 1986a: 89; Ohno, Yoneyama, & Nakazawa 1982b: 8.
- deplanatulus Schedl** 1950f: 53. Holotype ♀; Fiji; Eggers Collection, in NHMW, Wien. Distribution: Fiji Islands. Hosts: *Schefflera* sp. References: (ds) Browne 1974a: 65. (tx) Schedl 1950f: 53, 1979c: 78.
- duplex Browne** 1974a: 68. Holotype ♀; Fiji: Viti Levu, Nandarivatu; BMNH, London. Synonymy: Schedl 1980: 121. References: (ce) Roberts 1977a: 256. (hb) Roberts 1977a: 256. (ds) Browne 1974a: 65; Roberts 1977a: 256. (tx) Browne 1974a: 65–68; Schedl 1980: 121.
- deplanatus Eggers** 1933b: 32. Holotype ♀; Franz. Guayana (Charvein, Nouveau Chantier, St. Laurent du Maroni, Les Hattes); MNHN, Paris. Distribution: South America (Cayenne). Hosts: *Talisia* sp. References: (ds) Blackwelder 1947: 779. (tx) Eggers 1933b: 33; Schedl 1948f: 273; Wood, S. L. 1972c: 197.
- longideclivis Wood** 1968b: 1. Holotype ♀; Bartica triangle, British Guiana; BMNH, London. Synonymy: Wood 1972c: 197. References: (tx) Wood, S. L. 1968b: 1, 1972c: 197.
- depressurus Browne** 1985a: 192. Holotype ♀; Pomio (New Britain) to Nagoya (Japan), imported; BMNH, London. Distribution: Indonesia (Moluccas), New Britain Island. Hosts: *Agathis* sp., *Celtis* sp. References: (ds) Ohno, Yoneyama, & Nakazawa 1987: 94; Ohno et al. 1989: 61. (tx) Browne 1985a: 192.
- derelictus Hagedorn** 1910b: 12. Holotype ♂; Ostafrika; MNB, Berlin. Distribution: Africa (Tanzania). References: (ds) Hagedorn 1910d: 101; Kleine 1913b: 160, 1914b: 323. (tx) Hagedorn 1910a: 153, 1910b: 12; Schedl 1962j: 576.
- desertus Schedl** 1971c: 379. Holotype ♀; Timor: Pimao, 1200 m; Schedl Collection in NHMW, Wien. Distribution: Indonesia (Timor Island). Notes: (1) The holotype is damaged, only abdomen, hind wings, and legs remain (DEB). References: (tx) Schedl 1971c: 379–380, 1979c: 78.
- despectus Schedl** 1975j: 294. Holotype ♂; Malaisia, Selangor, Kuala Lumpur; MHNG, Geneva. Distribution: Asia (Malaya). Notes: (1) Possible synonymy notation; Schedl Collection paratypes marked male are actually female *Coccotrypes gedeanus*. References: (tx) Schedl 1975j: 294, 1979c: 79.
- detectus Schedl** 1975a: 458. Holotype ♀; Dong Dang [Vietnam]; Schedl Collection in NHMW, Wien. Distribution: Asia (Vietnam). Hosts: *Pinus massoniana*. References: (tx) Schedl 1975a: 458, 1979c: 79.
- detritus Eggers** 1927b: 402. Holotype ♀; Java; Eggers Collection, in NHMW, Wien. Distribution: Indonesia (Java). References: (tx) Eggers 1927b: 402–403; Schedl 1931c: 341–342, 1954c: 160, 1979c: 79.
- devius Schedl** 1979g: 106. Holotype ♀; Papua [New Guinea]: Bulolo, Morobe Dist., Upper Manki L. A.; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: (tx) Schedl 1979g: 106.
- dichrous Eichhoff** 1868c: 144. Holotype ♀; Brasilia; Hamburg Museum, lost. Distribution: South America (Brazil/ Guyana). References: (ds) Blackwelder 1947: 779; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 101; Kleine 1913b: 160, 1914b: 337; Sampson 1921: 33. (tx) Eggers 1933b: 35; Eichhoff 1868c: 144, 1875: 202; Hagedorn 1905a: 412, 1908, 1910a: 153; Sampson 1921: 32–33.
- diglyptus Schedl** 1956a: 33. Holotype ♀; British Cameroons, Mt. Cameroon, Buea Slope; CAS, San Francisco. Distribution: Africa (Cameroon). References: (tx) Schedl 1956a: 33, 1962j: 493, 1964f: 622, 1979c: 80.
- dimidiatus Eggers** 1927b: 404. Holotype ♀; Perak [Malaya]; USNM, Washington. Distribution: Asia (Malaya). References: (hb) Browne 1961c: 150. (tx) Anderson, W. H. & Anderson 1971: 12; Eggers 1927b: 404.
- discrepans Schedl** 1950d: 29. Syntypes ♀; D. Ost. Afrika, Usimbura, Kwai; Schedl Collection in NHMW, Wien.

Distribution: Africa (Ivory Coast/ Kenya/ Principe Island/ Sao Tome Island/ Tanzania).

References: (ds) Schedl 1962j: 259, 1979b: 416. (tx) Schedl 1950d: 29, 1962j: 259, 1979c: 82.

discretus Eggers 1933b: 29. Holotype ♀; Marcapata, Peru; USNM, Washington.

Distribution: North America (Costa Rica/ Chiapas in Mexico), South America (Cayenne/ Guyana/ Peru/ Venezuela).

Hosts: *Alexa imperatricia*.

References: (hb) Wood, S. L. 1982b: 818. (ds) Atkinson & Equihua 1986a: 421; Blackwelder 1947: 779; Wood, S. L. 1982b: 818. (tx) Anderson, W. H. & Anderson 1971: 12; Eggers 1933b: 29–30; Schedl 1952h: 70; Wood, S. L. 1972c: 197, 1982b: 818.

usticus Wood 1968b: 3. Holotype ♀; Bartica Dist., British Guiana; BMNH, London. Synonymy: Wood 1972c: 198.

References: (tx) Wood, S. L. 1968b: 3, 1972c: 198.

dispar (Fabricius) 1792: 363 (*Apate*). Syntypes 3 ♀; Germaniae; UZMC, Copenhagen.

Figures: Balachowsky 1949a: 222, 228, 1963a: 1283, Bevan 1987: 116, Burton et al. 1968: 191, Chararas 1962c: 317, Duffy 1953: 15, Grune 1979: 156, Pfeffer 1989a: pl. 7, Postner 1974: 462, Reisch 1966b: 172.

Distribution: Asia (Heilongjiang in China/ India/ Turkey/ E USSR), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ Finland/ France/ Germany/ Greece/ Hungary/ Italy/ Netherlands/ Norway/ Poland/ Sardinia/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), North America (introduced: British Columbia, Nova Scotia, Ontario in Canada/ District of Columbia, Idaho, Illinois, Maine, Maryland, Massachusetts, Michigan, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, Utah, Virginia, Washington, West Virginia in USA).

Hosts: *Acer* spp., *Aesculus* spp., *Alnus* sp., *Betula* spp., *Carpinus turezaninowii*, *Castanea dentata*, *Celtis* sp., *Corylus* spp., *Crataegus* sp., *Fagus* sp., *Fraxinus mandschurica*, *F. sp.*, *Gleditsia* sp., *Ilex* sp., *Juglans* spp., *Liriodendron* sp., *Malus* spp., *Pinus* sp., *Plananus* sp., *Populus* spp., *Prunus* spp., *Punica* sp., *Pyrus communis*, *Quercus* spp., *Rosa* spp., *Salix* spp., *Sorbus alnifolia*, *Tsuga* sp., *Vitis* spp.

References: (ay) Batra 1963b: 227; Bugnion 1887b; Chapman 1904; Escherich 1923b: 466, 487, 633; Feytaud 1950a; Finnegan 1963: 137; Fisher 1954; Francke-Grosman 1956b, 1956c, 1957, 1958: 141; French, J. R. J. & Roeper 1973; Hadorn 1933; Happ, Happ, & French 1976; Hopkins 1894g; Imhoff 1856: 228; Leisewitz 1906: 104; Lhoste & Roche 1960; Murayama 1933a: 3; Nosek 1958a: 87; Numberg 1928a: 140; Nusslin

1911a: 338, 89; Schneider 1976; Schneider-Orelli 1911: 186, 1912: 279, 1913: 25–110, 1915: 65–67, 1916: 5–21; Schwerdtfeger 1929: 360; Sedlaczek 1902b: 244; Uchastnova 1958: 39. (bv) Daterman, Rudinsky, & Nagel 1965; Grune 1979: 157; Klimetzek et al. 1986: 270; Kovach 1986a; Magema, Gasper, & Severin 1982; Meixner 1937: 1216; Schroeder & Lindelow 1989. (cn) Acatay 1943a: 71; Ahlberg 1942; Alkan 1959b: 196; Altum 1880a; Anonymous 1878b: 398, 1896c: 28, 1931b: 325, 1940b: 8, 1962h, 1978u; Balachowsky 1963a: 1282; Barbey 1901: 104, 1902: 167, 1906d, 1925: 617; Beauverie 1912, 1913; Becker 1950; Berlese 1915; Blandford 1892b; Boocock 1959d; Bovier & Thomsen 1950: 156–157; Brandt 1952, 1957, 1960: 136; Britton 1899, 1916, 1917: 140; Brooks 1917: 1–15; Browne 1968: 714; Bud 1972; Cermack 1938; Champion 1923; Chararas 1957e; Chittenden 1895: 385, 1902; Chorbadzhievo 1929; Collinge 1915: 789–791; Eckstein 1915, 1921, 1926: 572; Egger, A. 1973; Egorov 1958: 1492; Eichhorn & Graf 1974; Engel 1949; Escherich 1923b: 466, 487, 633; Essig 1926: 520, 1958: 520; Esterberg 1959; Falck 1916: 168; Felt 1906: 446; Felt & Bromley 1937a; Feytaud 1950a; Fisher 1937a, 1952a; Fletcher 1887: 14, 1898, 1905: 240; Froggatt 1899, 1900; Gabler 1955; Garcia-Tejero 1955: 235; Gentry, J. W. 1965: 134; Geschwind 1919; Gossard 1911: 97, 116, 1913: 65, 1914: 12; Gradojevic 1938; Grandi 1951; Grill 1899; Groschke 1952b: 297, 1953: 81; Guse 1885; H. S. 1907; Hagedorn 1910c; Hahmann 1937: 140, 1938: 116; Harris 1843a, 1843b; Hartig 1872b, 1877: 195; Harvey & Munson 1899: 107–114; Hatch 1938: 194; Hauptfleisch 1930: 56; Henao 1958; Herfs 1950: 7; Hesjedal & Edland 1958; Hess 1900: 40, 1907: 240, 259; Hess & Beck 1914: 288, 1927: 344; Hill, D. S. 1987: 341; Hoffmann 1913: 218–220, 1916: 260; Hopkins 1894b: 295, 1894g: 278; Houba 1913: 252; Hubbard 1897b: 22–23; Ihssen 1907: 14–18; Jary & Austin 1937: 9–15; Joakimov 1925: 65; Johannsen 1910: 41, 1912: 363, 1913: 1–18; Johannsen & Patch 1910: 328, 1911: 235; Judeich & Nitsche 1895: 546; Kamp 1954: 4; Kanschinger 1893: 192; Kholodkovskii 1912: 279, 1912: 320; Kleine 1932a: 308; Kobakhidze 1960: 1851; Koch 1956; Kollar 1840: 254; Konig, E. 1957: 111; Koppa 1962; Koppen 1882: 252; Kotte 1941: 64, 1948: 70, 1958: 117; Kovacevic 1957: 69; Kovach 1986a; Kovach & Gorsuch 1985; Kristek 1966; Kurir 1953: 1–4, 1955: 1–4, 1957: 1–4; Lampa 1902: 112; Leach 1940b: 59; Lekander, M. 1951: 108; Lindblom 1938: 29; Lovett 1920: 55–57, 1921: 127, 1923: 5; Lugger 1899: 85–331; Luitjes et al. 1954: 118; Lundberg 1956b: 128; Lustner 1913a: 5, 1913c: 1; Majernik 1957: 72; Maksimovic 1959: 3–13; Marcu 1926c: 64; Miller & Thompson 1937: 12; Muller 1912: 186; Muller-Thurgau et al. 1917: 416–426; Noll 1938: 43; Novak, V., Hrozinka, & Stary 1976: 87;

- Nusslin 1913: 204; O'Kane 1914: 249; Ormerod 1889a: 145, 1889b: 92, 1898: 185; Osterwalder 1921: 8; Paillot 1926: 838; Palm 1951: 233; Patch & Johannsen 1916: 8; Pelekassis 1962; Philipp 1950: 225; Picard 1921: 15; Reisch 1966a: 120–122, 1966b: 171–180; Reisinger 1947a: 211; Reissig 1949: 131; Reuter 1902: 18; Rhumbler 1922: 328, 1927: 343; Riley & Howard 1895: 419; Ritzema 1915: 301–331; Rodary 1959: 852; Roediger 1956: 36; Rossem 1954: 247, 1957: 57; Rutherford 1914b: 221; Saalas 1949: 343, 378; Savary 1946: 94; Schaal 1922: 205; Schimitschek 1935b: 147, 1936c, 1937c: 53, 1938c: 2119, 1939a: 458, 1939d: 2119, 1944: 179, 1955a: 136, 1955c: 85; Schmidt 1881: 55; Schneider-Orelli 1907: 289, 1915a: 66, 1915b: 47, 1917a: 5, 1917b: 463, 1938: 293, 1946: 318; Schock 1879: 367; Schoyen 1916: 32; Schreier 1950: 393; Schruft 1963: 410–419; Schuster 1918: 101; Schvester 1951b: 3, 1952b: 1, 1952c: 3, 1953: 1, 1954a: 225–257, 1954b: 9, 1956: 35; Schwappach et al. 1929: 186; Schwerdtfeger 1944a: 185, 1957a: 190; Slingerland & Crosby 1914: 232; Smith, J. B. 1900: 362; Soenen 1966: 149; Soenen & Paternotte 1972; Solinal 1966; Spirchez 1965; Stehli 1911: 475; Stephan 1952: 10; Strohmeier 1906b: 330; Swaine 1910: 58; Taraschkewitsch 1934: 357; Theobald 1909: 367; Thompson 1946: 90–91; Tullgren 1916: 104; Vappula 1962: 123; Vasseur & Schvester 1948: 86, 1953: 167; Vaysiere 1920: 342; Vigiani 1943: 100; Vrydagh 1955a: 111; Wachtl 1901: 381; Wahl 1914: 1–4; Warburton 1917: 209–219; Weber, H. 1926: 572; Wichmann 1927b: 354, 360, 1957a: 95; Wilson 1913: 97–105, 1915: 6, 46–50; Wilson, C. F. & Becker 1960: 87; Wolff & Krause 1922: 91; Wood, C. D. 1897: 78; Wood, S. L. 1977a: 73; Zimiglebl 1901: 58; Zurn 1902: 19, 27; Zwolfer 1949: 401. (cc) Annila 1977; Apel 1983; Ashe 1934; Baert & Maelfait 1977; Balazy & Michalski 1960, 1964b; Barbey 1902: 167; Batra 1963a, 1963b: 216; Batra & Michie 1963: 476; Beanverie 1910a, 1910b; Brammanis 1940; Buchner 1928, 1949; Derksen 1941; Eichhorn & Graf 1974; Felt 1906: 446; Finnegan 1963: 137; Fisher 1954; Francke-Grosman 1956b, 1956c, 1957; French, J. R. J. 1972; French, J. R. J. & Roeper 1972a, 1972b, 1973, 1975; Fuchs 1914b; Fuller 1958: 98; Gyorfi 1941b; Hagedorn 1907c; Hartig 1844; Heliovaara & Lilja 1989; Heqvist 1963: 155; Hesjedal & Edland 1988; Janka 1908; Joly 1949a: 10; Kabir & Gilese 1966b: 894; Kharazishvili 1957: 693; Kleine 1908c: 219, 1909a: 49, 1944: 76; Klimesch 1914c: 59; Knauer 1908: 500; Kobakhidze 1960: 1851; Kostenko 1929; Leach 1940b: 59; Leach et al. 1940: 227; Michalski & Ratajczak 1989; Mote 1935: 1–6; Neger 1908b: 279, 1908c: 276, 1908d: 322, 1909a: 374, 1909b: 408, 1911a: 50, 1911b: 223, 1915: 45; Nikitsky 1978; Norris 1979; Nosek 1956: 204, 1959a: 118, 1959b: 85; Novak 1952: 417; Nusslin 1927: 345; Palmén 1946: 195; Peklo et al. 1950: 191; Perris 1856a: 244; Pfeffer 1923a: 331, 1928b: 2, 1943b: 179; Pfeffer & Prihoda 1950: 3; Poinar 1975: 170; Ratzeburg 1869a: 176; Reiche 1966; Rodary 1959: 852; Roeper & French 1981; Ruhm 1955d: 70, 1956b: 4; Ruschka 1923: 201; Russ 1966; Saalas 1949: 343, 378; Scheerpeltz & Hoffer 1948: 280; Scheidter 1936: 236; Schimitschek 1936a: 558, 1939: 449–461, 1941a: 315, 1955a: 136; Schneider 1976; Schneider-Orelli 1911: 186, 1912a: 324, 1912b: 279, 1913: 25–110; Schoyen 1914: 31–58, 1915: 37–92, 1916: 32, 1918; Schuster 1918: 101; Schvester 1950: 48, 1952: 1–9, 1954a: 225–257, 1954b: 9–12, 1955: 225–257; Schwerdtfeger 1927: 360, 1944a: 185, 1957a: 190; Sedlaczek 1915a: 45, 1935a: 162; Silvestri 1911: 396; Slaby 1947: 375; Speyer 1937: 30; Steinhaus 1946: 402, 1949: 92; Theobald 1914: 1–158, 1915; Thompson, W. R. 1943: 117; Turnau 1984; Uchastnova 1988: 39; Umnov 1958: 50–52; Vasseur & Schvester 1953: 167–172; Verrall 1943: 141; Vite 1952a: 103–104; Webb 1945: 64; Wichmann 1955a: 95; Yanovskii 1977b; Zimmermann 1908b: 717; Zimmermann, G. 1973. (hb) Acatay 1943a: 71–73; Ahlberg 1942; Alkan 1959b; Altum 1877, 1879c, 1879d, 1881c: 319; Anca 1961; Annila 1977; Anonymous 1878b: 398, 1934a: 747; Apel 1983; Ashe 1934: 94; Bach 1864; Baeta Neves 1943a; Balachowsky 1963a: 1255; Balachowsky & Mesnil 1935: 22; Barbey 1901: 27, 104, 1906d, 1913, 1925: 617, 1942; Bargmann 1899d: 8; Baudys 1929; Becker 1950; Beeson 1916a; Beffa 1961; Bellovoje 1894: 89–111, 1898, 1900: 89–111; Berlese 1915; Blandford 1892b; Boas 1923: 361; Bonnemaison 1953; Brandt 1960: 136; Bright 1976d: 134; Bright & Stark 1973: 76; Britton 1899; Browne 1968: 714; Budge 1949; Budkov 1897; Bugnion 1887b; Bukowsky 1930; Buysson 1910; Cairaschi & d'Agiler 1957; Cecconi 1903, 1924; Cernak 1938; Chamberlin 1958: 185; Chapman 1904: 100–102; Chararas 1957e, 1962c: 318; Chorbadzhievo 1929; Daterman, Rudinsky, & Nagel 1965; Deyrup & Atkinson 1987a: 65; Dombrowsky 1887; Drooz 1985: 373; Dyakowski 1911; Eckstein 1889, 1897, 1915, 1921, 1926: 572; Egger, A. 1973; Eichhoff 1881a: 53, 269, 1882a: 245, 1882c: 705; Eichhorn & Graf 1974; Escherich 1923b: 466, 487, 633; Essig 1926: 520, 1958: 520; Everts 1902, 1903: 769; Falek 1916: 168; Felt 1900: 446; Feytaud 1950a; Fisher 1936a, 1952a, 1954; Floericke 1924; French, J. R. J. & Roeper 1975; Froggatt 1899, 1900; Fuchs 1904a; Furniss, M. M. & Johnson 1987: 380; Furst 1888: 113; Gabler 1955; Gerhard 1908; Gillanders 1908; Gomostaev 1916: 314; Graber 1879: 130; Grandi 1951; Granlund 1921; Groschke 1952a, 1952b, 1953a; Gyorfi 1936: 526, 529, 1957; Hadorn 1933; Hagedorn 1903a, 1910c; Hartig 1872b, 1877: 195; Henschel 1876a: 210, 240, 1895a: 191; Hesjedal & Edland 1988; Hess 1900: 40, 1907: 240, 259; Hess & Beck 1914: 288,

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(tx) Acloque 1896; Altman 1844; Apel 1983; Bach 1854, 1864; Balachowsky 1944b, 1949a: 220, 1963a: 1282–1283; Balachowsky & Mesnil 1935: 22–24; Barbey 1901: 27, 104; Beaulien 1923; Bedel 1888b: 403, 420; Beffa 1949, 1961; Benoit 1985: 284; Bertolini 1972; Blandford 1892b; Boas 1923: 361; Brancsik 1871; Brandt 1960: pl. 28; Bright 1968b: 1307, 1976d: 134; Burton et al. 1968: 191; Buysson 1880; Calver 1858; Chamberlin 1958: 185; Chapuis & Candeze 1853; Chararas 1962c: 317; Chorbazdzhevo 1924d; Dejean 1821, 1825; Dombrowsky 1887; Duffy 1953: 15; Duftschmidt 1825; Eggers 1912f: 29, 1920: 231, 1922c: 17, 1923a: 176, 180, 185, 1927a: 180, 1927b: 402, 1928c, 1929e: 41, 1930d: 179–199, 1931a: 19, 1933b: 27, 1935c: 209, 1937b: 335, 1940d: 139, 1941a: 101, 1942c: 36; Eichhoff 1864b: 37–38, 1866: 277, 1868d: 419, 1875: 201, 1876: 378–379, 1878b: 320, 1881a: 53, 269, 1883a: 115, 141; Endrodi 1957b; Erichson 1836: 63; Escherich 1923b: 466, 487, 623; Escherich & Escherich 1897; Everts 1903: 769, 1922: 648; Fabricius 1792: 363, 1801: 382; Fauvel 1887, 1889; Ferrari 1867a: 24, 26, 1867b: 114; Fleischer 1927; Fricken 1889: 352; Gabler 1955; Gillanders 1908; Groschke 1952a, 1953a; Grune 1979: 156–157; Gyllenhal 1813: 363, 1827: 624; Hagedorn 1908, 1910a: 153, 1910b, 1912a: 343; Hansen, V. 1956, 1964: 463; Hartig 1844: 73–74; Henry 1892: 12; Henschel 1876a: 210, 240, 1895a: 191; Hill, D. S. 1987: 341; Hopkins 1914: 117, 1915b: 68, 1915c: 211; Hubbard 1897b: 22; Iablokoff-Khnzorian 1961: 89; Illiger 1907: 321; Jacobi 1906: 148; Jacquelin du Val & Fairmaire 1868: 107, 109; Judeich & Nitsche 1895: 546; Kalina 1970: 129; Karpinski & Strawinski 1948: 156; Keen 1929: 40; Kestercanek 1881b: 254; Kinghorn 1960b: 50; Koppa 1962: 76; Knotek 1892a: 38; Kuhnt 1913: 1060; Letzner 1891: 377; Leunis 1886: 181; Lindemann 1875a: 138, 1875c: 372; Lovendal 1889b: 72, 1898: 184; Lucas 1920: 674; Lucht 1987: 279; Lunardoni & Leonardi 1889: 481; Meixner 1937: 1216; Murayama 1933a: 3, 27, 33; Negru 1966b: 402; Niisima 1910: 11; Nordlinger 1848: 249, 1856: 34; Nosek 1958: 87–90; Novak, V., Hronzinka, & Stary 1976: 87, 98; Nunberg 1928a: 140, 1954: 58; Nusslin 1911a: 89, 338; Ormerod 1889b: 92; Panzer 1795a: 287; Perris 1877a: 415; Pfeffer 1932b: 20, 1942a: 3, 1955a: 192, 1989a: pl. 7; Portevin 1935: 329; Postner 1974: 461; Quaschik 1953: 35; Ratzeburg 1837: 130, 169, 1839: 157, 204–208; Redtenbacher 1849a: 358, 1849b: 26, 1858: 836, 1874: 381–382; Reisch 1966b: 172; Reitter 1894a: 92, 1913a: 80, 1916: 294, 351; Rey 1892b: 30; Rhumbler 1922: 328, 1927: 343; Riley & Howard 1890: 279; Rupertsberger 1880: 232; Saalas 1913a: 67, 85, 1949: 343, 378; Schaufuss 1897: 108; Schedl 1934f: 1646, 1937b: 400, 1938h: 462, 1942d: 29, 1951b: 376, 1951i: 63, 1952f: 88, 1954a: 155, 1957d: 82, 84, 1957c: 881, 1959a: 155, 1959h: 100, 1960g: 11, 1964k: 220, 1980a: 19, 1981b: 93; Schimitschek 1937c: 53, 1955c: 85; Schlechtendal & Wunsche 1879: 126; Schreier 1950: 393; Seidlitz 1872: 397, 1891a: 568, 1891b: 614; Sokanovskii 1954: 20; Spessivtsev 1913a: 97–98, 1922a: 476–477, 492; Stark 1952: 427; Stephens 1829a:

144, 1829b: 12, 1830: 353, 1839: 206; Stierlin 1898: 448; Stresemann et al. 1889: 353; Swaine 1909: 152–153, 1910b: 162–164; Taschenberg 1880: 238, 1901: 107; Thomson 1865: 369, 1868: 223; Titus, Meikle, & Harrison 1985: 128; Vulmice & Davis 1984; Wissman 1846: 25; Wood, S. L. 1957a: 337, 1982b: 794; Yin, Huang, & Li 1984: 172. **(ms)** Boocock 1959d; Burton et al. 1968: 190; Eggers 1912e; Eichhoff 1868d: 419; Escherich 1932b; Hatch 1938: 194; Heinemann 1908a; Kestercanek 1881b: 254; Klimesch 1914c: 59; Lucas 1920: 674; Merino-Rodriguez 1966: 50; Ritter 1929: 555; Schwappach 1924: 57; Swaine 1907: 191, 1912b: 141.

brevis Panzer 1793: 34 (*Bostrichus*). Syntypes ♀; Germany (?); not located, presumed lost. Synonymy: Eichhoff 1878b: 321.

References: **(ds)** Illiger 1805: 129; Stephens 1829a: 144; Swaine 1909: 153. **(tx)** Bechstein 1818: 76, 216; Bechstein et al. 1805; Eichhoff 1878b: 321; Kestercanek 1881b: 254; Panzer 1793: 34, fig. 20, 1795a: 288; Redtenbacher 1849: 851; Stephens 1829a: 144; Swaine 1909: 153. **(ms)** Kestercanek 1881b: 254.

thoracicus Panzer 1793: 34 (*Bostrichus*). Syntypes ♀; Germany; not located, presumed lost. Synonymy: Hagedorn 1910d: 102.

References: **(ds)** Illiger 1805: 129; Stephens 1829a: 144; Swaine 1909: 153. **(tx)** Bechstein 1818: 75, 215; Bechstein et al. 1805: 104; Eichhoff 1878b: 221; Hagedorn 1910d: 102; Kestercanek 1881b: 254; Panzer 1793: 34, 1795a: 288, 1805: 118; Redtenbacher 1849a: 851; Stephens 1829a: 144; Swaine 1909: 153. **(ms)** Kestercanek 1881b: 254.

pyri Peck 1817: 207 (*Scolytus*). Syntypes ♀; Massachusetts [USA]; not found, presumed lost. Synonymy: Hubbard 1897: 22–23; Swaine 1918: 124.

References: **(bv)** Moeck 1971. **(cn)** Baker, W. L. 1972: 269; Blackman 1950; Britain 1927: 41–42; Brooks 1916: 14; Chamberlin 1939: 444–445; Childs et al. 1946: 3; Cook 1891: 130–131; Currie 1905: 13, 20; Doane et al. 1936; Downes 1936: 36; Drake 1921: 203–204; Eddy 1943: 48; Gossard 1913: 65, 1914: 12; Harris 1826, 1841: 75, 1842: 75, 1844, 1852a: 80, 1852b: 80, 1854: 214, 1855: 204, 1863: 91, 1890: 90; Hatch 1933; Hewitt 1915: 25, 1916: 1–40; Lintner 1887b: 84, 107, 110, 1890a: 198; Lochhead 1902: 109, 1919: 340; Lugg 1899a: 310; MacNay 1966; MacNay & Creelman 1958: 14; Mote 1935: 4, 1944: 5–7; Newcomer 1933: 32–34, 1941: 36, 1966: 35; Ormerod 1898: 185; Packard 1890: 92; Quaintance & Siegler 1922: 66, 1931b: 75; Riley & Howard 1890: 279; Roling & Kirby 1973; Ruppel 1967: 9; Saunders 1883: 143; Schuh & Mote 1948: 118–119; Swaine 1918a: 124, 125; Thompson, B. G. et al. 1944: 6, 1948: 607;

Titus & Pratt 1904: 20; Walsh 1860: 308–309, 1866: 7, 1867b: 55; Whitcomb & Bourne 1940: 20. **(cc)** Chamberlin 1939: 444–445; Kinghorn 1960b; Mathers 1940: 189–190; Mote 1944: 5. **(hb)** Baker, W. L. 1972: 269; Beal & Massey 1945: 150; Blackman 1950; Chamberlin 1939: 444–445; Doane et al. 1936; Harris 1841: 75; Kinghorn 1960b; Lintner 1887b: 84, 107, 110, 1896: 270; Lugg 1899a: 310; Mather 1940: 189; Morstatt 1924: 56; Newcomer 1933: 33, 1966: 35; Packard 1890: 92; Peck 1817: 207; Roling & Kearby 1973; Saunders 1883: 143; Schwarz 1889: 138; Swaine 1918a: 124–125; Thompson, B. G. et al. 1944: 6; Titus & Pratt 1904: 20, 31. **(ds)** Anonymous 1926c: 520; Baker, W. L. 1972: 269; Beal & Massey 1945: 150; Beaulne 1956; Blackman 1950; Blatchley & Leng 1916: 626; Britton 1920a; Chamberlin 1925, 1939: 444–445; Chapuis & Candèze 1853; Cook 1891; Currie 1905; Forbes 1890: 295; Frost & Dietrich 1929; Gemminger & Harold 1872: 2686; Hatch 1933; Henshaw 1885: 148; Hopkins 1893a: 135, 1893b: 210; Keen 1929: 40; Kinghorn 1940: 84, 1960: 50; Kleine 1934a: 177; Leng 1920: 342; Leonard 1928: 520; MacNay & Creelman 1958: 14; Melsheimer 1853: 87; Patterson & Hatch 1945: 153–154; Provancher 1877: 567; Ruppel 1967: 9; Schuh & Mote 1948: 118; Schwarz 1886: 41, 45; Smith, J. B. 1900: 362, 1910: 402; Swaine 1909: 153; Wood, S. L. 1948: 72, 1951a: 128, 1957c: 403. **(tx)** Beal & Massey 1945: 150; Blatchley & Leng 1916: 626; Chamberlin 1939: 444–445; Chapuis & Candèze 1853; Comstock 1948; Eichhoff 1878b: 323; Hopkins 1915b: 68–69, 1915c: 211; Hubbard 1897: 22–23; Keen 1929: 40; LeConte 1868: 159, 1876: 358–360; Peck 1817: 205–207, 1819: 307–313; Provancher 1877: 567; Schedl 1960a: 11; Schwarz 1886: 41–45, 1887: 20; Swaine 1909: 153, 1910b: 161, 1918a: 124–125; Titus, Meikle, & Harrison 1985: 24; Wood, S. L. 1951a: 128, 1957c: 403; Zimmermann 1868: 144. **(ms)** Essig 1931: 699.

tachygraphus Sahlberg 1834: 52 (*Bostrichus*). Syntypes ♀; presumably Finland; not located. Synonymy: Eichhoff 1878b: 321.

References: **(hb)** Chittenden 1897c; Wachtl 1876a: 460. **(ds)** Calver 1884, 1893; Gemminger & Harold 1872: 2692; Kleine 1914b: 393; Schann 1872: 2692; Schilsky 1909: 189; Stein 1868: 114; Stein & Weise 1877: 165; Swaine 1909: 153; Wachtl 1876a: 460. **(tx)** Eichhoff 1864b: 46, 1878b: 321–323; Ferrari 1967b: 110; Kestercanek 1881b: 254; Letzner 1891: 377; Sahlberg 1834: 52, 1836: 152; Swaine 1909: 153.

ratzeburgi Kolenati 1846: 39 (*Bostrichus*). Syntypes, sex?; Iberia et Caucaso; Mus. Acad. Sc.

- Petrop. et Dris. Kolenati. Synonymy: Ferrari 1867a: 27, Eichhoff 1878b: 321, 323.
References: **(ds)** Kolenati 1846: 39; Schilsky 1909: 189; Swaine 1909: 154. **(tx)** Eichhoff 1878b: 321–323; Ferrari 1867a: 27; Kolenati 1846: 39; Letzner 1891: 377; Swaine 1909: 154.
- swaini* Drake 1921: 203 (*Anisandrus*). Holotype ♀; Wanakena, New York; USNM, Washington. Synonymy: Wood 1957c: 403.
References: **(ec)** Thompson, W. R. & Simmonds 1964: 39, 1965: 83. **(hb)** Chamberlin 1939: 444; Drake 1921: 201–205. **(ds)** Anonymous 1926c: 520; Chamberlin 1939: 444; Leng & Mutchler 1927: 52; Leonard 1928: 520. **(tx)** Chamberlin 1939: 444; Drake 1921: 201–204; de Ruelle 1970: 97, Wood, S. L. 1957c: 403.
- dispar rugulosus* Eggers 1922c: 17. Lectotype ♂; Brout Vernet in Frankreich; USNM, Washington, designated by Anderson & Anderson 1971: 28.
References: **(tx)** Anderson, W. H. & Anderson 1971: 28; Eggers 1922c: 17; Schedl 1934f: 1646.
- cerasi* Eggers 1937b: 335. Holotype ♀; Italien (Montella, Prov. Avellino); Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1964k: 220.
References: **(tx)** Eggers 1937b: 355; Schedl 1938h: 462, 1964k: 220, 1979c: 55.
- dissimulatus* Wood 1974a: 38. Holotype ♀; Tapanti, Cartago, Costa Rica; Wood Collection. Distribution: North America (Costa Rica).
Hosts: *Miconia caudata*, and a liana.
References: **(hb)** Wood, S. L. 1982b: 816. **(ds)** Wood, S. L. 1982b: 816. **(tx)** Schedl 1980d: 121; Wood, S. L. 1974a: 38, 1982b: 816.
- distinguendus* Eggers 1930d: 205. Holotype ♀; Almora, United Provinces (Kali Valley, 9000 feet); FRI, Dehra Dun. Distribution: India (Uttar Pradesh).
Notes: (1) This species may belong to *Cyclo-rhipidion*; additional study needed.
References: **(tx)** Eggers 1930d: 204–206.
- dolosus* Blandford 1896b: 225. Holotype ♀; Borneo, Sarawak; BMNH, London. Distribution: Asia (Malaya), Indonesia (Sarawak in Borneo), Philippine Islands.
Hosts: *Balanocarpus heimii*, *Dipterocarpus crinitus*, *Shorea* spp.
Notes: (3) Schedl 1971c: 381 (described male).
References: **(hb)** Browne 1961c: 152; Kalshoven 1959c: 141, 152. **(ds)** Browne 1961c: 152, 1981a: 126; Hagedorn 1910d: 103; Kalshoven 1959c: 141, 152; Kleine 1913b: 161, 1914b: 289; Ohno et al. 1987: 88; Schedl 1959c: 167, 1971c: 364; Wood, S. L. 1982b: 793. **(tx)** Blandford 1896b: 225; Eggers 1927e: 97–98, 1940d: 150; Hagedorn 1910a: 153; Schedl 1942d: 44, 1959c: 167, 1971c: 381; Wood, S. L. 1982b: 793.
- dorsalis* Schedl 1965g: 27. Holotype ♀; Cote d'Ivoire, Abidjan; Schedl Collection in NHMW, Wien.
Distribution: Africa (Ivory Coast).
References: **(tx)** Schedl 1965g: 27, 1979c: 84.
- dorsosulcatus* Beeson 1930: 219. Holotype ♀; Burma: Bilumyo Reserve, Myitkyina; FRI, Dehra Dun. Distribution: Asia (Burma).
Hosts: *Pentacme suavis*.
References: **(tx)** Beeson 1930: 43–44, 57, 219, 1961: 304.
- dossuarius* Eggers 1923a: 187. Syntypes 2 ♀; Mt. Makiling auf Luzon; 1 in SMTD, Dresden, 1 in Hamburg Museum, lost. Distribution: Asia (Vietnam), Philippine Islands (Luzon).
References: **(ds)** Schedl 1936g: 531, 1966b: 51. **(tx)** Eggers 1923a: 187–188, 1927b: 406, 1930d: 198; Nobuchi 1983: 302; Schedl 1933e: 101–102, 106, 1936g: 531, 1952b: 367, 1961f: 90, 1979c: 84.
- dryographus* (Ratzeburg) 1837: 167 (*Bostrichus*). Syntypes ♀; apparently sudlichen Deutschland; not located.
Figures: Grune 1979: 154.
Distribution: Africa (Algeria/ Egypt/ Libya/ Morocco/ Tunisia), Asia (Iran/ Japan/ Turkey), Europe (Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ England/ France/ Germany/ Greece/ Hungary/ Italy/ Luxemburg/ Norway/ Poland/ Sardinia/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia).
Hosts: *Castanea vesca*, *Fagus* sp., *Phytophthora cambivora*, *Quercus* spp., *Ulmus* sp.
References: **(ay)** Bugnion 1887b; Crowson 1938; Escherich 1923b: 488, 632; Feytaud 1950a; Fisher 1954; Francke-Grosmann 1957; Hadorn 1933; Schwerdtfeger 1929: 360. **(bv)** Grune 1979: 155; Meixner 1937: 1216. **(cn)** Androic 1966: 46; Barbey 1925: 435; Becker 1950; Chorbadzhevo 1929; Eckstein 1926: 572; Escherich 1923b: 488, 632; Feytaud 1950a; Gabler 1955; Goidanich & Goidanich 1934; Grandi 1951; Groschke 1953b; Hess 1900: 39; Hess & Beck 1914: 291, 1927: 347; Jacquiot 1951a: 2; Judeich & Nitsche 1895: 546; Kamp 1954: 4; Kleine 1932a: 308; König, E. 1957: 109; Koppen 1882: 260; Marcu 1926c: 64; Nusslin 1913: 205; Pierce, W. D. 1917: 40; Reissig 1949: 131; Rhlumbler 1922: 329, 1927: 346; Schimitschek 1937c: 53, 1944: 181, 1955a: 137, 1955c: 86; Schwerdtfeger 1944a: 185, 1957a: 190; Strohmeyer 1906b: 330; Wachtl 1901: 381; Weber, H. 1926: 580; Wichmann 1927b: 360, 1957a: 96; Wolff & Krause 1922: 93; Zwoller 1949: 401. **(ec)** Fisher 1954; Francke-Grosmann 1957; Gyorfi 1941b; Kleine 1908c: 219, 1909a: 49, 78, 1944: 73; Kostenko 1929; Michalski & Ratajczak 1989; Neger 1909b: 408, 1911a: 50; Nosek 1959a: 118, 1959b: 87; Novak 1952: 417; Nusslin 1927: 182;

- Perris 1856a: 197; Pfeffer 1928b: 2, 7, 1943b: 182; Pfeffer & Prihoda 1950: 3; Poinar 1972, 1975: 170; Roubal 1934b: 178; Rühm 1955d: 71, 1956b: 4; Schimitschek 1955a: 137; Schwerdtfeger 1929: 360, 1944a: 185, 1957a: 190; Sedlacek 1915a: 127, 1935a: 162; Slaby 1947: 375; Vite 1952a: 106; Wichmann 1955a: 95. **(hb)** Adeli 1972: 14; Altum 1881c: 317; Bach 1864; Baeta Neves 1943a; Baeta Neves & Goes 1944; Barbey 1901: 28, 108, 1925: 435; Bargmann 1906; Becker 1950; Bugnion 1887b; Bukowsky 1930; Cecconi 1903, 1924; Charvat 1950; Chorbadzhievo 1929; Dombrowsky 1887, 1892; Duprez 1944; Dyakowski 1911; Eckstein 1897, 1926: 572, 1928; Eggers 1908d; Eichhoff 1881a: 54, 282, 1882a: 245; Escherich 1923b: 488, 632; Everts 1902; Feytaud 1950a; Fisher 1954; Fuchs 1904a; Furst 1888: 113; Gabler 1955; Girard 1873; Grandi 1951; Groschke 1953b; Györfi 1936: 525, 529, 1957; Hadorn 1933; Hagedorn 1903a; Henschel 1876a: 216, 240, 1895a: 192; Hergula 1939: 305; Hess 1900: 39; Hess & Beck 1914: 291, 1927: 347; Husson 1955: 352; Jacquot 1951a: 2; Judeich & Nitsche 1895: 546; Karpinski & Strawinski 1948: 156; Karsch 1883: 142; Kleine 1932a: 308; Knotek 1894a: 559, 1896: 150; König, E. 1957: 109; Lengerken 1954: 318; Liese 1950: 141; Lunardoni & Leonardi 1889: 484; Marcu 1941: 403; Mjöberg 1906: 137; Munro 1926: 57; Nosek 1959a: 118, 1959b: 87; Nusslin 1898: 283, 1913: 205, 1927: 346; Perris 1856a: 197; Pfeffer 1942a: 3; Postner 1974: 467; Ratzeburg 1837: 130, 167, 1839: 157, 203; Rühm 1922: 329, 1927: 346; Rupertsberger 1880: 232; Schimitschek 1944: 181, 1955a: 137; Schwarz 1891e: 79; Schwerdtfeger 1929: 360, 1944a: 185, 1957a: 190, 1981: 196; Sedlacek 1935a: 162; Spessivtsev 1913a: 101; Stark 1952: 435; Strohmer 1906: 330, 1910b: 89; Tschorbadjiev 1929: 169; Vite 1952a: 106; Wachtl 1876a: 456, 1901: 381; Weber, H. 1926: 580; Wichmann 1927b: 360; Wissman 1846: 25; Wolff & Krause 1922: 93. **(ds)** Acatay 1960: 12; Acloque 1896; Adeli 1972: 14; Andersch 1851; Androic 1966: 46; Andras & Schaefer 1957; Auhmann 1913: 1-126; Baeta Neves & Goes 1944; Barthe 1896; Bau 1888; Bedel 1888b: 402, 419; Blanchere & Robert 1889; Borchert 1951; Brakman 1966b: 206; Brancsik 1871, 1906; Brandis 1890: 185; Buck 1955b: 191; Bukowsky 1930; Buresh & Lazarov 1956; Calwer 1893; Cecconi 1897, 1903; Charvat 1950; Chorbadzhievo 1924d, 1929; Chrystal 1937; Crotch 1863; Duprez 1938a; Eggers 1904, 1912f; Endrodi 1958a, 1958b, 1981: 185; Ericson & Sandin 1893; Escherich 1923b: 488, 632, 1932b; Fedorov 1930; Fowler 1891; Frennet 1947; Fuchs 1904a, 1905a; Gaubil 1849: 126; Gemminger & Harold 1872: 2685; Gerhardt 1901; Gozis 1875: 80; Credler 1866: 375; Grill 1895: 311; Grune 1979: 155; Györfi 1936: 525, 529, 1941b; Hagedorn 1903a, 1910d: 103; Henschel 1895a: 192; Heyden 1876: 300; Heyden, Reitter, & Weise 1883: 182, 1891: 674, 1906: 713; Hickin 1963; Hoffmann 1936; Holdhaus 1912: 454; Horion 1951; Judeich & Nitsche 1895: 546; Kadyrov 1959; Kaltenbach 1874: 646; Karpinski & Strawinski 1948: 156; Kersten 1933: 75; Kestercanek 1881a: 12; Kleine 1912a: 262, 268, 1913a: 36, 1913b: 161, 1914a: 16, 1932a: 308, 1934a: 173; Kloft & Hinks 1945: 218; Knotek 1892a: 38, 1894a: 559; Koca 1905: 192; Kolbe, W. 1918: 211; Koltze 1901: 154; Koppen 1882: 260; Kostenko 1929; Kraatz 1869: 60; Lacordaire 1866: 351; Langhoffer 1915c: 158; Leclercq 1971; Lentz 1857: 140; Liese 1950: 141; Lomnicki 1913b: 148; Lucht 1987: 280; Luna de Carvalho 1950: 15; Lunardoni & Leonardi 1889: 484; Marcu 1926c: 64; Matthews & Fowler 1883: 42; Murayama 1954b: 177; Negru 1966b: 402, 1968a: 456, 1968c: 91; Novak, P. 1952: 417; Nunberg 1928b: 88, 110, 1954: 62, 1960b: 157; Nusslin 1898: 283; Orest 1926c: 64; Orten 1886: 280; Paganetti-Hummeler 1901; Perris 1876a: 256, 1877a: 416; Pfeffer 1928b: 2, 7, 1931b: 73, 1989a: 88; Pierce, W. D. 1917: 40; Pittioni 1943: 176; Postner 1974: 467; Prosen 1913: 84; Ragusa 1924: 117; Rapp 1934: 736; Ratzeburg 1837: 130, 167, 1839: 157, 203; Redtenbacher 1858: 835, 1874: 381; Reissig 1949: 131; Reitter 1869b: 155, 1894a: 90, 1916: 294; Roubal 1935b: 73, 1941: 275; Rye 1868: 189; Sainte-Claire 1914: 475; Sainte-Claire & Mequignon 1938: 449; Schaufuss 1915: 1238; Schaum 1859: 96, 1862: 101; Schedl 1961b: 185, 1964a, 1967c: 73, 1971b: 529, 1971d: 427, 1972n: 351, 1980a: 19, 1981d: 94; Schilsky 1909: 189; Schwarz 1891e: 79; Schwerdtfeger 1981: 196; Seidlitz 1872: 396, 1891a: 565, 1891b: 613; Sharp & Fowler 1893: 34; Stark 1927b: 89, 1952: 435; Stein 1868: 114; Stein & Weise 1877: 165; Stierlin 1898: 447; Stierlin & Gautard 1871: 293, 1906: 206; Sturm 1843: 230; Thomson 1865: 369, 1868: 223; Treidl 1907: 18; Tschorbadjiev 1929: 169; Wachtl 1876a: 456; Westhoff 1882: 240; Wichmann 1927a: 70, 1955a: 95, 1957a: 96; Winter, T. C. 1983: 28. **(tx)** Acloque 1896; Bach 1854, 1864; Balachowsky 1949a: 227; Barbey 1901: 28, 108; Bedel 1888b: 402, 419; Bertolini 1872; Brancsik 1871; Charvat 1950; Chorbadzhievo 1924d; Dombrowsky 1887, 1892; Donisthorpe 1940: 157; Duffy 1953; Eggers 1912f: 29; Eichhoff 1864d: 37-38, 1868d: 423, 1878b: 362-363, 382, 1881a: 54, 282, 1883a: 116, 142; Endrodi 1957b; Escherich 1923b: 488, 632; Escherich & Escherich 1897; Fabricius 1801: 382; Fauvel 1889; Ferrant 1911; Ferrari 1867a: 20, 22, 24, 1867b: 114; Fleischer 1927; Formanek 1907: 53; Gabler 1955; Gebien 1907: 197; Girard 1873; Grune 1979: 154-155; Hagedorn 1910a: 153, 1912a, 1913b; Henry 1892: 12; Henschel 1876a: 216, 240, 1895a: 192; Hoffmann 1936: 44-45; Hopkins 1898: 28; Jacquelin du Val & Fairmaire 1868: 107; Judeich & Nitsche 1895: 546; Karpinski & Strawinski 1948: 156; Knotek 1892a: 38;

- Kulmt 1912: 1060; Lacordaire 1866: 381; Letzner 1891: 378; Leunis 1886: 181; Lucht 1987: 280; Lunardoni & Leonardi 1889: 484; Meixner 1937: 1216; Murayama 1954b: 177; Negru 1966b: 402; Nunberg 1954: 62; Perris 1877a: 416; Pfeffer 1932b: 21, 1942a: 3, 1955a: 198; Portevin 1935: 330; Postner 1974: 467; Quaschik 1953: 35; Ratzeburg 1837: 130, 167, 1839: 157, 203; Redtenbacher 1849a: 358, 1849b: 26, 1858: 835, 1874: 381; Reitter 1894a: 90, 1913a: 82, 1916: 294, 1918: 83; Rhumbler 1922: 329, 1927: 346; Roubal 1937: 67–68; Rupertsberger 1880: 232; Schedl 1934f: 1646, 1952f: 88, 1957d: 82, 1980a: 19, 1981b: 94; Schimitschek 1937c: 53–54, 1955c: 86; Seidlitz 1872: 396, 1891a: 568, 1891b: 613; Spessivtsev 1913a: 101–103, 1922a: 478, 1931: 59; Stark 1952: 435; Stierlin 1898: 447; Strohmeyer 1910: 88–91, 1912b: 57; Swaine 1909: 158; Thomson 1865: 369, 1868: 223; Wissman 1846: 25; Wood, S. L. 1977b: 211. (**ms**) Eichhoff 1868d: 423; Escherich 1932b; Schwappach 1924: 59.
- flavus* Stephens 1830: 356 (*Tomicus*). Holotype, sex?; Norfolk or New-forest; Stephens Collection, not located, preoccupied by Fabricius 1801. Synonymy: Rye 1868: 189. References: (**tx**) Rye 1868: 189; Stephens 1830: 356.
- sampsoni* Donisthorpe 1940: 6. Holotype ♀; Richmond Park, London; BMNH, London, preoccupied by Eggers 1930. Synonymy: Blair 1940: 40. References: (**tx**) Blair 1940: 40; Donisthorpe 1940: 6; Schedl 1951i: 51.
- linearis* Schedl 1948f: 273. Lectotype ♀; America borealis; USNM, Washington, designated by Wood 1977b: 211. Synonymy: Wood 1977b: 211. Notes: (1) The type is an obviously mislabeled or intercepted specimen; the species is not established anywhere in America. References: (**tx**) Schedl 1948f: 273, 1948h: 578, 1979c: 139; Wood, S. L. 1977b: 211.
- donisthorpi* Schedl 1951i: 51. Holotype ♀; Richmond Park, London; BMNH, London, automatic. Synonymy: Blair 1940: 40. References: (**tx**) Blair 1940: 40; Schedl 1951i: 51.
- dubiosus* Perkins 1900: 177. Holotype ♀; Maui; Iao Val.; BMNH, London. Figures: Samuelson 1981: 56. Distribution: Hawaiian Islands (Maui, Oahu, Molokai). Hosts: *Bobea* sp., *Coprosma* sp., *Eugenia sandwicensis*, *Perrottetia sandwicensis*, *Physalis peruviana*, *Pipturus* sp., *Psychotria* sp. Notes: (3) Samuelson 1981: 70 (described male). References: (**ds**) Beeson 1938b: 292; Hagedorn 1910d: 103; Kleine 1913b: 161, 1914b: 302; Samuelson 1981: 70. (**tx**) Eggers 1927b; Hagedorn 1910a: 153; Perkins 1900: 177; Samuelson 1981: 56, 70;
- duodecimspinus* Schedl 1936g: 531. Lectotype ♀; North-East Papua: Mt. Lamington, 1300–1500 feet; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 85. Distribution: New Guinea. Notes: (1) Most references cite this species as *12-spinatus*. References: (**ds**) Schedl 1936g: 531–532. (**tx**) Schedl 1979c: 85.
- duploarmatus* Browne 1962c: 204. Holotype ♀; Sarawak; Kuching; BMNH, London. Distribution: Asia (Malaya), Indonesia (Sarawak in Borneo). References: (**ds**) Parsons 1963: 114. (**tx**) Browne 1962c: 204.
- eggersi* Beeson 1930: 215. Holotype ♀; Bengal: Lopchu, Debprepani, Senchal Range, Darjeeling; FRI, Delra Dun. Distribution: Asia (Bengal in India). Hosts: *Litsaea umbrosa*, *Symplocos theaeifolia*, *Turpinia hepalensis*. References: (**cn**) Mathur & Singh 1961a: 64. (**ds**) Beeson 1961: 304; Mathur & Singh 1961a: 64. (**tx**) Beeson 1930: 215–216, 233; Schedl 1950g: 895.
- eichhoffianus* Schedl 1950h: 110. Syntypes ♀; Madagascar; USNM, Washington, automatic. Figures: Nunberg 1963b: pl. 13. Distribution: Africa (Ghana/ Somalia/ South Africa/ Zaire), Madagascar. Hosts: *Albizia zygia*, *Ficus exasperata*, *Gossweilerodendron balsamiferum*, *Terminalinus ivorensis*, *Triplochiton scleroxylon*. References: (**ds**) Alluaud 1900: 438–442; Frappa 1933: 179; Mayne & Donis 1960: 104, 1962: 318; Thompson, C. H. 1963: 71. (**tx**) Schedl 1950h: 110, 1954d: 872, 1954e: 52, 1955c: 30–31, 1955d: 269, 272, 1955f: 259, 1957d: 16, 1977b: 157.
- eichhoffi* Schaufuss 1891: 25. Syntypes ♀; Madagascar; USNM, Washington, preoccupied by Schreiner 1882. Notes: Schedl 1979c: 88 (citation of holotype invalid). References: (**ds**) Alluaud 1900: 440; Hagedorn 1910d: 103; Kleine 1913b: 161, 1914b: 327. (**tx**) Eggers 1920; Hagedorn 1910a: 153, 1913b: 256; Nunberg 1963b: 30, pl. 13; Schaufuss 1891: 25–27; Schedl 1957d: 16, 1979c: 88.
- elevatus* Eggers 1931a: 21. Holotype ♀; Venezuela (Caracas); MNB, Berlin. Distribution: Antilles Islands (Puerto Rico), South America (Venezuela). Notes: (1) Schedl 1979c: 89 (lectotype designation invalid). References: (**ds**) Blackwelder 1947: 779; Bright 1982b: 165, 1985c: 173. (**tx**) Bright 1985c: 173; Eggers 1931: 21; Schedl 1935d: 92, 1958f: 46, 1979c: 88.

elongatus Eggers 1920: 43. Holotype ♀; Mkulumusberg bei Sigi (D.-O.-Afrika); Hamburg Museum, lost.

Distribution: Africa (Kenya/ Tanzania/ Zaire).

Hosts: *Drypetes leonensis*, *Maba abyssinica*.

References: (hb) Roberts 1969: 132; Schedl 1962j: 287. (ds) Browne 1975a: 759; Schedl 1962j: 287. (tx) Eggers 1920: 43; Schedl 1957b: 150–151, 158, 1962j: 288.

emarginatus Eichhoff 1878b: 510. Holotype ♀; Hindostan (Birma); Hamburg Museum, lost.

Figures: Nobuchi 1978a: pl. 2, Nunberg 1959a: pl. 20, figs. 1–3, Yin & Huang 1981: 569, Yin, Huang, & Li 1984: 160.

Distribution: Asia (Burma/ Fujian, Shanxi, Sichuan, Xizang [Tibet] in China/ India/ Laos/ Malaya/ Sri Lanka/ Vietnam), Australia, Indonesia (Borneo, Java, Mentawai, Moluccas, Sumatra), New Guinea, Philippine Islands.

Hosts: *Abies fabri*, *Albizia falcata*, *Balanocarpus heimii*, *Castanea argentea*, *Castanopsis* sp., *Cinchona* sp., *Dipterocarpus baudii*, *Durlo zibethinus*, *Fagraea gigantea*, *Ficus* sp., *Intsia palembanica*, *Koompassia excelsa*, *Mangifera foetida*, *Palaquium* sp., *Pinus tabulaeformis*, *P. yunnanensis*, *Populus* sp., *Quercus* sp., *Sarcocephalus cordatus*, *Shorea leprosula*, *Symplocos* sp.

References: (bv) Gray, B. 1974c. (cn) Mathur & Singh 1960b: 84, 1961a: 26; Yunus & Hua 1980: 230. (hb) Beaver & Browne 1978: 607; Browne 1935a, 1941, 1961c: 152–154; Kalshoven 1959c: 156. (ds) Beaver & Browne 1978: 608; Beeson 1961: 304; Browne 1935a, 1961a: 305, 1961c: 152, 1965a: 189, 1968a: 132–133; Choo & Woo 1983; Hagedorn 1907b, 1910d: 103; Kalshoven 1959c: 156; Kleine 1913b: 161, 1914b: 278; Mathur & Singh 1960b: 84, 1961a: 26; Nobuchi 1978a: 22; Ohno, Yoneyama, & Nakazawa 1982a: 4, 1982b: 8, 1987: 94, 1989: 94; Ohno et al. 1987: 88, 1988a: 93, 1989: 61; Schedl 1936d: 3, 1936g: 528, 1936j: 20, 1960e: 172, 1964c: 305, 1966b: 52, 1966g: 31, 1969a: 208, 1969e: 156, 1971c: 363, 1971f: 148, 1973c: 378, 1975i: 346, 1975j: 294, 1979a: 158, 1979h: 158; Yin & Huang 1981: 569; Yin, Huang, & Li 1984: 160; Yunus & Hua 1980: 230. (tx) Eggers 1925: 159, 1929e: 49; Eichhoff 1878a: 392, 1878b: 510; Hagedorn 1907b, 1908, 1910a: 153, 1910b; Kalshoven 1959b: 96; Keler 1928: 30; Nobuchi 1978a: pl. 2, 1983: 302; Nunberg 1959a: 424; Schedl 1939e: 331, 1940b: 435, 1941a: 43, 1942a: 170, 1942d: 6, 1954a: 141, 1954c: 160, 1955h: 45, 1960h: 108, 1965g: 22, 1973e: 93; Wylie & Yule 1977; Yin & Huang 1981: 569; Yin, Huang, & Li 1984: 160.

cinchonae Veen 1897: 135. Syntypes ♀; Java (Preanger?); Colonial Museum at Haarlem and RNH, Leiden. Synonymy: Kalshoven 1959: 96.

References: (cn) Kalshoven 1932: 244; Konings-

berger 1898: 38; Kleine 1932a: 307. (hb) Kleine 1932a: 307. (ds) Hagedorn 1910d: 52; Kalshoven 1932: 24, 1959: 96; Kleine 1913b: 127, 1914b: 288, 1932a: 307, 1934a: 176; Koningsberger 1908: 77. (tx) Eggers 1923a: 203–204, 1927b: 407, 1927c: 95; Hagedorn 1910a: 104; Kalshoven 1959: 96; Schedl 1942d: 6, 1951i: 44, 83, 1954a: 140; Veen 1897a: 135, 1897b: 18.

cordatus Hagedorn 1910b: 12. Syntypes ♀; Mentawai (Modigliani); MNB, Berlin. Synonymy: Schedl 1942d: 6.

References: (cn) Yunus & Hua 1980: 230. (ds) Hagedorn 1910d: 100; Kleine 1913b: 160, 1914b: 286; Yunus & Hua 1980: 230. (tx) Eggers 1927b: 402, 407, 1929e: 49; Hagedorn 1910a: 153, 1910b: 12; Schedl 1936g: 528, 1942d: 6.

emarginatus semicircularis Schedl 1973c: 92. Holotype ♀; Porotop Lutheran Mission Station, Western Highlands Dist. [New Guinea]; CSIRO, Canberra. Synonymy: Wood 1989: 176. References: (tx) Schedl 1973c: 92, 1979c: 90; Wood, S. L. 1989: 176.

eurgraphus (Ratzeburg) 1837: 168 (*Bostrichus*). Syntypes ♀; presumably Deutschland; not located. Distribution: Africa (Algeria/ Egypt/ Libya/ Morocco/ Tunisia), Asia (Turkey), Europe (Austria/ Corsica/ France/ Germany/ Greece/ Hungary/ Italy/ Luxemburg/ Netherlands/ Poland/ Spain/ Switzerland/ Yugoslavia).

Hosts: *Pinus* spp., *Quercus* spp., *Ulmus* spp.

References: (ay) Bugnion 1887b; Escherich 1923b: 488; Feytaud 1950a; Murayama 1933a: 3; Nusslin 1911a: 60. (bv) Grune 1979: 153. (cn) Anonymous 1977r, 1986: 41; Barbey 1925: 261; Escherich 1923b: 488; Falck 1916: 170; Feytaud 1946, 1950a, 1950b; Grandi 1951; Hubault 1945; Judeich & Nitsche 1895: 546; Kholodkovskii 1912: 320; Mumford 1964: 11; Nusslin 1913: 286; Pfeffer 1933: 43; Pierce, W. D. 1917: 75; Ratzeburg 1871c: 81; Rhumbler 1922: 329, 1927: 345; Rudnev 1965b; Sargos 1947: 8; Schimitschek 1944: 180, 1955c: 85; Strohmeier 1906b: 334; Wachtl 1901: 381; Wichmann 1927b: 352. (ee) Apfelbeck 1916b; Kleine 1908c: 219; Kostenko 1929; Novak, P. 1952: 417; Nusslin 1927: 345; Perris 1852: 503, 1856a: 194; Pfeffer 1928b: 6, 1933: 43, 1943b: 181; Pfeffer & Prihoda 1950: 3; Schedl 1958d: 188, 1966f: 90; Speyer 1937: 30; Vite 1952a: 107. (hb) Altum 1881c: 322; Apfelbeck 1916b, 1917; Baeta Neves 1943a; Baeta Neves & Goes 1944; Barbey 1901: 27, 105, 1925: 261; Bugnion 1887b; Bukowsky 1930; Chararas 1962c: 323; Dombrowsky 1887, 1892; Duprez 1944; Eichhoff 1881a: 53, 277; Escherich 1923b: 488; Falck 1916: 170; Feytaud 1946: 7, 1950a; Girard 1873; Grandi 1951; Györfi 1957; Henschel 1895a: 192; Judeich & Nitsche 1895: 546; Karpinski & Strawinski 1948: 156; Kholodkovskii 1912: 320; Knotek

1894a: 559, 1896: 150; Mjoberg 1906: 142; Nusslin 1913: 286, 1927: 345; Perris 1852: 503, 1856a: 194; Peyerimhoff 1919: 257; Pfeffer 1941b: 37, 1942a: 3; Postner 1974: 464 Ratzeburg 1837: 168, 1839: 157, 1871c: 81; Rhumbler 1922: 329, 1927: 345; Rupertsberger 1879: 231, 1880: 232; Schimitschek 1944: 180; Spessivtsev 1913a: 100; Speyer 1937: 30; Stark 1926a: 330, 336, 1952: 433; Strohmeyer 1906b: 334; Vite 1952a: 107; Wachtl 1876a: 455, 1901: 381; Wichmann 1927b: 352. (**ds**) Acloque 1896; Baeta Neves & Goes 1944; Barthe 1896; Blanchere & Robert 1889; Bouwer 1960; Brakman 1966b: 402; Brancsik 1906; Bukowsky 1930; Calwer 1884, 1893; Choo, Woo, & Nobuchi 1988a: 134; Duprez 1938a; Endrodi 1958b; Escalera 1919; Escherich 1923b: 488, 1932b; Eyquem 1991; Friederichs 1919; Fuchs 1905a; Gaubil 1849: 126; Gemminger & Harold 1872: 2685; Georgiou 1977: 75; Gozis 1875: 80; Grune 1979: 153; Hagedorn 1910d: 103; Hallett 1923b: 13–14; Henschel 1895a: 192; Heyden, Reitter, & Weise 1883: 182, 1891: 674, 1906: 713; Hoffmann 1936; Horion 1951; Jazentkovsky 1912: 292; Judeich & Nitsche 1895: 546; Karpinski & Stravinski 1948: 156; Kestercanek 1881a: 12; Kleine 1913a: 36, 1913b: 161, 1934a: 173; Knotek 1892a: 38, 1894a: 559; Kostenko 1929; Kraatz 1869: 60; Lacordaire 1866: 381; Langhoffer 1915c: 158; Larroche & Torosian 1971; Leder 1871: 132; Lomnicki 1913b: 148; Lucht 1879: 279; Luna de Carvalho 1950: 15; Mequignon 1936: 15, 42; Mirzoian 1950: 139; Mumford 1964: 11; Negru 1966b: 402; Novak, P. 1952: 417, 1964; Numberg 1928b: 88, 109, 1954: 62; Perris 1876a: 255, 1877a: 415; Peyerimhoff 1919: 257, 1933b: 367; Pfeffer 1928b: 6, 1930b: 120, 1931b: 74, 1933: 3–54, 1947e: 14, 1989a: 87; Pierce, W. D. 1917: 75; Pittioni 1943: 176; Pjatkitskii 1930a: 165; Postner 1974: 464; Prossen 1913: 84; Rapp 1934: 735; Ratzeburg 1837: 168, 1839: 157; Redtenbacher 1858: 835, 1874: 381; Reitter 1894a: 89, 1916: 294; Roubal 1941: 275; Rudnev 1965b; Saint-Albin 1949: 2; Sainte-Claire 1914: 475; Sainte-Claire & Mequignon 1938: 449; Schaufuss 1915: 1237; Schaum 1859: 96, 1862: 101; Schedl 1959h: 100, 1961b: 185, 1966f: 87, 1967c: 73, 1971d: 426, 1980a: 20, 1981b: 93; Scheerpeltz & Winkler 1930: 258; Schilsky 1909: 189; Schneider & Leder 1977: 55; Seidlitz 1872: 396, 1891a: 567, 1891b: 613; Stark 1926a: 330, 336, 1926b: 104, 1926g: 154, 1952: 433; Stein 1868: 114; Stein & Weise 1877: 165; Strach 1861: 122; Sturm 1843: 230; Tredl 1907: 18; Wachtl 1876a: 455; Wichmann 1927a: 69. (**tx**) Acloque 1896; Bach 1854; Balachowsky 1949a: 225; Barbey 1901: 27, 105; Bertolini 1872; Dombrowsky 1887, 1892; Eggers 1923a: 197–201, 1930d: 206; Eichhoff 1864b: 37–38, 1878b: 355, 1881a: 53, 277, 1883a: 116, 141; Endrodi 1957b; Escherich 1923b: 488; Fauvel 1889; Ferrari 1867a: 20, 1867b: 414; Fleischer 1927; Girard 1873; Grune 1979: 152;

Hagedorn 1910a: 153; Henschel 1895a: 192; Hoffmann 1936: 43–45; Iablokoff-Khnzorian 1961: 105; Jacquelin du Val & Fairmaire 1868: 107, 109; Judeich & Nitsche 1895: 546; Karpinski & Stravinski 1948: 156; Knotek 1892a: 38; Lacordaire 1866: 381; Letzner 1891: 377; Lucht 1987: 279; Murayama 1933a: 3, 1933b: 19, 27; Negru 1966b: 402; Numberg 1954: 62; Nusslin 1911a: 60; Perris 1877a: 415; Pfeffer 1932b: 20, 1941b: 3, 7, 1942a: 3, 1947e: 14, 1955a: 196, 1989a:pl. 8; Portevin 1935: 329; Postner 1974: 464; Quaschik 1953: 35; Ratzeburg 1837: 168, 1839: 157; Redtenbacher 1849a: 791, 1849b: 26, 1858: 835, 1874: 381; Reitter 1894a: 89, 1913a: 81, 1916: 294; Rhumbler 1922: 329, 1927: 345; Rupertsberger 1879: 231, 1880: 232; Schedl 1934f: 1646, 1957d: 82, 1980a: 20, 1981b: 93; Schimitschek 1937: 54, 1955c: 85; Seidlitz 1872: 396, 1891a: 567, 1891b: 613; Spessivtsev 1913a: 99–100, 1922a: 477, 1931: 57–58; Stark 1952: 433. (**ms**) Escherich 1932b; Schimitschek 1930b: 407.

exaratus Blandford 1898b: 206. Holotype ♂; Bugaba, Chiriqui, Panama; BMNH, London. Distribution: North America (Panama). References: (**ds**) Blackwelder 1947: 779; Hagedorn 1910d: 104; Kleine 1914b: 371. (**tx**) Blandford 1898b: 206; Hagedorn 1910a: 153; Wood, S. L. 1982b: 841.

excavus Schedl 1964g: 249. Holotype ♀; Sarawak, Setapok; BMNH, London. Distribution: Indonesia (Sarawak in Borneo). Hosts: *Shorea* sp. References: (**tx**) Schedl 1964g: 249, 1979c: 93.

exesus Blandford 1894d: 119. Syntypes 2 ♀; Miyanosita [Japan]; BMNH, London. Figures: Nakane et al. 1963:pl. 192, Numberg 1978: 112. Distribution: Asia (Fujian in China/ Japan/ Taiwan).

Hosts: *Passenia cuspidata*, *Quercus* sp.

Notes: (1) Schedl 1973e: 92 (a synonym of *emarginatus* Eichhoff [requires confirmation]).

References: (**cn**) Anonymous 1980g. (**ds**) Anonymous 1980g; Blandford 1894c; Hagedorn 1910d: 104; Kleine 1913b: 161, 1914b: 260; Murayama 1936a: 132, 1949c: 103, 1954b: 177, 1955: 100; Nakane et al. 1963: 383; Nobuchi 1985c: 24. (**tx**) Blandford 1894d: 119; Eggers 1923a: 204, 1927c: 95; Hagedorn 1910a: 154; Murayama 1934c: 299, 1936a: 132, 1954b: 177, 1955: 99–100; Nakane et al. 1963: 383; Numberg 1978: 111–112; Schedl 1934f: 1646, 1953e: 22, 1954c: 160.

eximius Schedl 1970b: 362. Holotype ♀; Borneo (Kalimantan), Samarinda to Myako (Japan), imported; PPST, Tokyo. Figures: Nobuchi 1978a:pl. 4. Distribution: Indonesia (Borneo). Hosts: *Agathis borneensis*. References: (**ds**) Nobuchi 1978a: 37. (**tx**) Nobuchi

- 1978a:pl. 4, 1983: 302; Schedl 1970b: 362–363, 1979c: 94.
- apicennotatus* Schedl 1971c: 377. Holotype ♀; Sarawak, Bintulu; BMNH, London. Synonymy: Wood 1989: 176.
- References: (ds) Schedl 1971c: 377, 1972a: 144; Wood, S. L. 1989: 176.
- exsectus** Perkins 1900: 179. Lectotype ♂; Maui: Haleakala; BMNH, London, designated by Samuelson 1981: 71.
- Figures: Samuelson 1981: 63.
- Distribution: Hawaiian Islands (Maui).
- References: (ds) Beeson 1938b: 292; Hagedorn 1910d: 104; Kleine 1913b: 161, 1914b: 302; Samuelson 1981: 72. (tx) Hagedorn 1910a: 154; Perkins 1900: 179; Samuelson 1981: 63, 72.
- falcarius** Schedl 1942c: 183. Holotype ♀; New Guinea; Schedl Collection in NHMW, Wien.
- Distribution: New Guinea.
- References: (tx) Schedl 1942a: 197, 1942c: 183, 1979c: 94.
- fallax** Eichhoff 1878b: 508. Holotype ♀; Hindostan (Birma); IRSNB, Brussels.
- Figures: Nobuchi 1978a:pl. 2, Nunberg 1959a:pl. 15, figs. 3–5.
- Distribution: Asia (Burma/ Assam in India/ Malaya/ Nepal/ Vietnam), Indonesia (Borneo, Java, Mentawai, Sumatra), New Guinea, Philippine Islands (Luzon).
- Hosts: *Achras sapota*, *Artocarpus elasticus*, *Butea monosperma*, *Castanea argentea*, *Castanopsis tribuloides*, *Dialium* sp., *Dipterocarpus* spp., *Fagraea gigantea*, *Intsia palembanica*, *Koompassia excelsa*, *K. malaccensis*, *Kydia calycina*, *Mesua ferrea*, *Shorea* spp., *Swintonia floribunda*, *Tectona grandis*, *Turpinia pomifera*, *Xanthophyllum* sp., *Xylia dolabriformis*, *X. xylocarpa*.
- References: (cn) Browne 1949e; Kleine 1932a: 307; Mathur & Singh 1960b: 84, 1961a: 40, 1961b: 14; Pierce, W. D. 1917: 193; Stebbing 1914: 582; Yunus & Hua 1980: 230. (cc) Beeson 1923; Browne 1958b; Stebbing 1914: 582. (hb) Beeson 1916a: 221, 1923; Browne 1935a, 1941, 1958b, 1961c: 155–156; Kleine 1932a: 307; Stebbing 1914: 582. (ds) Beeson 1916a: 1–5, 1923, 1930: 58, 83, 234, 1961: 304; Bhasin, Roonwal, & Singh 1958; Browne 1935a, 1961a: 305, 1961c: 155, 1963a: 189, 1980d: 491, 1983a: 556, 1985a: 90; Garthwaite 1940: 94–106; Hagedorn 1910a: 104; Kleine 1913b: 161, 1914b: 278, 1932a: 307; Mathur & Singh 1960b: 81, 1961a: 40, 1961b: 14; Nobuchi 1978a: 22; Ohno, Yoneyama, & Nakazawa 1982a: 4, 1982b: 8, 1987: 94; Ohno et al. 1987: 88, 1988a: 93, 1989: 61; Pierce, W. D. 1917: 193; Schedl 1936d: 3, 1964c: 304, 1965g: 24, 1966b: 53, 1971c: 364, 1971f: 148, 1973b: 211, 1973c: 375, 1975i: 346, 1979a: 160; Yunus & Hua 1980: 230. (tx) Beeson 1930: 58, 83, 234; Eggers 1923a: 203, 208, 1925: 153, 1927b: 402, 407, 1927e, 1930d; Eichhoff 1878a: 392, 1878b: 508; Hagedorn 1910a: 154, 1910b; Nobuchi 1978a:pl. 2, 1983: 302; Nunberg 1978: 112, 114; Schedl 1934g: 178, 1937e: 544, 1940b: 435, 1951i: 45, 1954a: 141, 1954c: 156, 1970i: 224; Stebbing 1914: 582.
- amphicranulus* Eggers 1923a: 204. Syntypes ♀; Sumatra (Si Rambi, Bandar Baroe), Engano, Mentawai; MCG, Genova, and Eggers Collection (USNM, Washington or NHMW, Wien?). Synonymy: Wood 1989: 176.
- References: (hb) Browne 1941; Kalshoven 1958a: 187, 1959c: 156. (ds) Beeson 1961: 302; Kalshoven 1958a: 187, 1959c: 156; Nobuchi 1978a: 21; Schedl 1964c: 305, 1965g: 24, 1967e: 215, 1969a: 208. (tx) Eggers 1923a: 204, 1925: 153; Nunberg 1959a: 414; Schedl 1939e: 331, 1942d: 6, 42, 1951i: 44, 1954a: 140, 1954c: 156, 1965g: 24, 1970i: 224, 1979c: 19.
- fallaxoides** Schedl 1955b: 302. Holotype ♀; Samoa; Schedl Collection in NHMW, Wien.
- Distribution: Samoan Islands.
- References: (ds) Schedl 1972b: 267. (tx) Schedl 1955b: 287, 302, 1979c: 95.
- falsus** Schedl 1966f: 116. Holotype ♀; Venezuela, by Moritz [presumably Colonia Tovar]; Schedl Collection in NHMW, Wien.
- Distribution: South America (Venezuela).
- References: (tx) Schedl 1966f: 116, 1979c: 95.
- fastigatus** Schedl 1935b: 402. Lectotype ♀; Acc. No. 195, Sch. of For., Univ. P.I.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 95.
- Figures: Nobuchi 1978a:pl. 2.
- Distribution: Asia (Malaya), New Guinea, Philippine Islands.
- Hosts: Lauan.
- References: (ds) Beaver & Browne 1978: 608; Nobuchi 1978a: 20; Nunberg 1961b: 610; Ohno et al. 1987: 88; Schedl 1966b: 54, 1966g: 32. (tx) Nobuchi 1978a:pl. 2, 1983: 302; Schedl 1935b: 402, 1940b: 435, 1979c: 95.
- ferox** Blandford 1898b: 201. Holotype ♀; Bugaba, Chiriqui, Panama; BMNH, London.
- Figures: Blandford 1898b:pl. 7, fig. 14, Terra 1987: 24.
- Distribution: North America (Costa Rica/ Panama), South America (Colombia).
- Hosts: *Coffea arabica*, *Ochroma* sp., *Theobroma cacao*.
- References: (hb) Wood, S. L. 1982b: 800. (ds) Blackwelder 1947: 779; Hagedorn 1910d: 104; Kleine 1913b: 161; Wood, S. L. 1982b: 800. (tx) Blandford 1898b: 201; Eggers 1940c: 238; Hagedorn 1910a: 154; Terra 1987: 22, 24; Wood, S. L. 1982b: 800.
- ferrugineus** (Fabricius) 1801: 388 (*Bostrichus*). Lectotype ♀; America meridionali; UZMC, Copenhagen, designated by Wood 1982b: 827.
- Figures: Bright 1972d: 95, 1976d: 132; Nobuchi

1978a: pl. 4, Samuelson 1981: 56, Schedl 1962j: 425, 1977b: 185, Wood 1960a: 65.

Distribution: Africa (introduced: Angola/ Grande Comore in Azores Islands/ Botswana/ Burkina Faso/ Burundi/ Cameroon/ Cape Verde Islands/ Congo/ Ethiopia/ Equatorial Guinea/ Fernando Poo/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Liberia/ Malawi/ Mauritania/ Mozambique/ Namibia/ Nigeria/ Ruanda/ Senegal/ Seychelles Islands/ Sierra Leon/ Somalia/ South Africa/ Sudan/ Tanzania/ Togo/ Uganda/ Zaire/ Zambia/ Zimbabwe), Antilles Islands (Bahama Islands/ Cuba/ Guadeloupe/ Dominican Republic, Haiti in Hispanola/ Jamaica/ Puerto Rico/ Trinidad), Australia, Cook Islands, Fiji Islands, Hawaiian Islands, Madagascar, Marquesas Islands, Micronesia (Guam), New Caledonia, New Guinea, Niue Island, North America (Belize/ Isla del Coco/ Costa Rica/ El Salvador/ Guatemala/ Honduras/ all states in Mexico/ Nicaragua/ Panama/ Alabama, Arizona, Arkansas, District of Columbia, Florida, Georgia, Illinois, Indiana, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, West Virginia in USA), Reunion Island, Samoan Islands, South America (Argentina/ Bolivia/ Brazil/ Cayenne/ Chile/ Colombia/ Ecuador/ Galapagos Islands/ Guyana/ Paraguay/ Peru/ Suriname/ Uruguay/ Venezuela), Tahiti Islands.

Hosts: Many reported by Schedl 1962j: 446–454, Wood 1982b: 829.

Notes: (3) Schedl 1962j: 426 (cites *conformis* Koll., *biuncus* Schedl, *obtusipennis* Eggers in synonymy, nomen nudums, no status).

References: (ay) Abrahamson 1969b; Abrahamson & Norris 1970: 177–180; Anonymous 1971i; Baker, J. M. & Norris 1968: 246–250; Beeman & Norris 1977a, 1977b; Bridges 1975b; Bridges & Norris 1977; Chu 1978b; Chu & Norris 1976, 1979; Chu, Norris, & Carlson 1975; Chu, Norris, & Kok 1970: 1379–1387; Chu, Norris, & Rao 1980, 1982; Entwistle 1963b; Kingsolver & Norris 1977a, 1977b, 1977d; Kok 1971b; Lhoste & Roche 1960; Norris 1972; Norris & Baker 1967: 1120–1122, 1968: 1473–1475, 1969: 592–594; Norris, Baker, & Chu 1969: 413–414; Norris & Chu 1970: 1142–1145, 1971; Norris, Chu, & Rac 1983; Norris & Moore 1980; Peleg & Norris 1972a, 1973a, 1973b; Rao, K. D. P., Norris, & Chu 1982; Saunders, J. L. & Knoke 1967a; Schneider 1976. (bv) Atkinson, Foltz, & Connor 1988; Dixon & Payne 1979b; Entwistle 1963b; Goldman, Cleveland, & Parker 1978; Kingsolver & Norris 1977c; MacGowan, J. B. 1973b; McLean & Borden 1977: 684; Moeck 1970b: 993; Roling & Kearby 1975b, 1977; Saunders, J. & Knoke 1968; Schedl 1960f: 53; Turnbow & Franklin 1980. (cn) Anonymous 1953j: 25, 1970c: 14, 1970h, 1977k; Beaver 1988a:

65; Blackman 1950: 307, 341, 349; Blandford 1892b; Browne 1968: 714; Cranham 1961b, 1961c: 26; Dinther 1950: 112, 1961; Equihua-Martinez 1988; Estrada & Atkinson 1988: 207; Ferreira & Morin 1985; Cagne & Kearby 1979: 300; Chesquiere 1933a: 27–36, 1933b: 777–786; Hamlen & Woodruff 1975; Hill, D. S. 1983: 496; Iton 1960: 461; Kudler 1978; Kumar & Youdeowei 1983: 189; Lepesme 1947: 647; MacGowan, J. B. 1973b; Maramorosch et al. 1972; Mead 1973b: 2; Roberts 1961a: 42; Roling & Kearby 1973, 1977; Santoro 1957: 25; Saunders, J., Knoke, & Norris 1967: 79–82; Williams, J. O. 1988; Wolcott 1933: 373, 1948: 383; Wood, S. L. 1977a: 73; Woodruff & Hamlen 1974; Yunus & Hua 1980: 230. (cc) Abrahamson 1969b; Abrahamson & Norris 1970; Anonymous 1953j: 25; Baker, J. M. & Norris 1968; Batra 1979; Dixon & Payne 1979b; Equihua & Atkinson 1986: 629; Iton 1960: 461; Kingsolver & Norris 1977c, 1977d; Kok 1971b; Kok & Norris 1972a, 1972c, 1973; Kok, Norris, & Chu 1970; Kumar & Youdeowei 1983: 109; Maramorosch et al. 1972; Naundorf 1956: 35; Naundorf et al. 1956: 30; Norris 1972, 1979; Norris & Baker 1967, 1968; Peleg & Norris 1972a, 1972b, 1973b; Roberts 1969: 132; Roling & Kearby 1977; Saunders, J. & Knoke 1967a: 462–463, 1967b: 1094–1096, 1968: 587–590; Schedl 1958d: 189, 1962j: 425; Schimitschek 1964c; Schneider 1976; Singh 1977: 105; Walt, Scott, & Van Der Klift 1971a: 456, 1971b: 463; Watson 1970: 1054; Wichmann 1955a: 97; Woodruff & Hamlen 1974. (hb) Anonymous 1959i: 18; Atkinson, Foltz, & Connor 1988; Baker, W. L. 1972: 270; Beaver 1976a: 24, 1988a: 65; Beaver & Loeytyniemi 1985a: 74; Beeman & Norris 1977a, 1977b; Blandford 1892b; Bright 1976d: 136; Browne 1963a: 241, 1968: 714; Burgos & Saucedo 1983: 98; Chamberlin 1925: 31; Deyrup & Atkinson 1987a: 65; Drooz 1985: 373; Entwistle 1963b; Equihua & Atkinson 1986: 629; Ferreira & Morin 1985; Frappa 1933: 179; Froggatt 1927: 58; Goldman, Cleveland, & Parker 1978; Hagedorn 1905a: 412, 1907a: 261, 1907b: 111, 1913: 15–22; Hill, D. S. 1983: 496; Jones, Roberts, & Baker 1959: 13–36; Kalshoven 1963; Kingsolver & Norris 1977b; Lesne 1907: 1235; Loytyniemi, Beaver, & Loytyniemi 1984; Norris et al. 1968: 852; Norris & Baker 1967; Ostmark 1968; Peleg & Norris 1972a, 1972b; Pollet 1977; Roberts 1961a; Roling & Kearby 1973; Saunders, J. & Knoke 1967a, 1968; Saunders, J., Norris, & Knoke 1967: 419; Schedl 1962j: 425; Schedl, W. 1962: 368; Steinhausen 1956: 48–57; Sukartana 1988; Thompson, G. H. 1963: 71; Webb & Jones 1957: 25–43; Wiebes 1962; Wood, S. L. 1982b: 827; Woodruff & Hamlen 1974. (ds) Alluand 1900: 440; Anonymous 1970c: 14, 1970h, 1970v, 1977k; Atkinson & Equihua 1986a: 421; Atkinson et al. 1986: 62, 1991: 160; Aulmann 1911: 438–441, 1912: 34–37, 44–48; Baker, W. L. 1972: 270;

- Beaver 1976a: 24, 1987b: 65, 1988a: 65; Beaver & Loeyttyniemi 1985a: 74; Beaver & Maddison 1990: 1372–1373; Blackwelder 1947: 779; Bright 1968b: 1312, 1972d: 81, 1976d: 136, 1982a: 128, 1985c: 173; Brimblecombe 1953: 28; Browne 1962b: 47–55, 1963a: 241, 1966: 254, 1968: 714–715, 1972b: 20, 1973a: 281, 1974a: 65, 1975a: 759, 1975b: 395; Bruch 1914: 429; Burgos & Saucedo 1983: 98; Cachan 1957: 42–53; Candeze 1861; Cola 1971, 1973; Costa Lima 1956: 292; Cranham 1961a: 30; Dejean 1837: 332; Deyrup 1981b: 7; Deyrup & Atkinson 1987a: 65; Drooz 1985: 373; Equihua & Atkinson 1986: 629; Estrada & Atkinson 1988: 207; Fauvel 1897: 66; Ferreira 1965: 1122; Ferreira & Morin 1985; Fleutiaux & Salle 1889: 457; Frost 1964: 144; Gangliumi 1966: 59, 80, 199, 231; Gardner 1957a: 33; Gemminger & Harold 1872: 2685; Gibson & Carillo 1959: 141; Hagedorn 1910d: 104; Hargreaves 1937: 510; Hill, D. S. 1983: 496, 1987: 341; Hubbard & Schwarz 1878: 666; Kalshoven 1963: 236; Kirk 1969, 1970; Kleine 1913b: 161, 1914b: 378, 1928: 307, 1931: 192; Kok & Norris 1972a, 1972b, 1972c, 1973; Kok, Norris, & Chu 1970: 661–662; Kolbe 1897: 15, 283, 1910: 41; Lacordaire 1866: 383; Lara & Shenefelt 1965: 169–177; Lee 1971: 31; Leng & Mutchler 1917: 220; Mayne & Donis 1951: 335, 1960: 104, 1962: 318; Menier 1973a; Nobuchi 1978a: 38; Norris 1976; Nunberg 1956: 144, 1958: 481, 1959a: 432, 437, 1960: 294, 1961: 330, 1963c: 98; Ohno, Yoneyama, & Nakazawa 1982b: 8, 1987: 94; Ohno et al. 1987: 88, 1988a: 93, 1989: 62; Okker 1962: 56; Ostmark 1968; Pedrosa-Macedo & Schonherr 1985: 29; Pollet 1977; Roberts 1960: 35–38, 1961: 39–43, 1977a: 256; Schedl 1938d: 451, 1938h: 463, 1938i: 28, 1939a: 363, 1940c: 208, 1941f: 116, 1942b: 148–149, 1943d: 68, 1948d: 37, 1948f: 280, 1950h: 105, 1950i: 146, 1951b: 376, 1951e: 39, 1951k: 139, 1951m: 72, 1952j: 5, 1953d: 71, 1955c: 31, 1955d: 269, 1957b: 150, 1958d: 189, 1958f: 35, 1958i: 215, 1959p: 20, 1960a: 75–76, 1960f: 40, 1960h: 8, 1961a: 530, 1961d: 178, 1961j: 349, 1962h: 60–65, 1962i: 72, 1962j: 425, 1962k: 1100, 1962m: 64, 1962p: 209, 1962r: 96, 1963a: 31, 1963c: 160, 1963f: 58, 1964f: 618, 1964j: 22, 1965e: 354, 1965g: 21, 1966a: 276, 1966c: 427, 1966e: 43, 1966f: 76–95, 1966g: 29, 37, 1967d: 3, 1967e: 216, 1968b: 145, 1969a: 207, 1969d: 4, 6, 12, 1970d: 233, 1970e: 83, 1970f: 582, 1971b: 266, 1971c: 362, 1971e: 1, 1971f: 148, 1971g: 193, 1972d: 152, 1972e: 283, 1972g: 38, 1972k: 296, 1973a: 368, 1973d: 158, 1974e: 52, 1975h: 350, 1975k: 277, 1976a: 54, 1977c: 394, 1977d: 279, 1977e: 43, 1978d: 73, 1979b: 416, 1979e: 58, 1980b: 184, 1982: 279; Schimitschek 1964: 178; Schmitz 1898: 157; Schneider & Farrier 1969: 412; Schonherr & Pedrosa-Macedo 1981: 55; Schreiner 1882: 248; Spahr 1981; Swezey 1941: 123, 1954: 38–216; Szent-Ivany 1963: 42, 1964: 89; Terra 1987: 25; Thatcher 1960: 17; Thompson, G. H. 1963: 71; Tucker 1952: 347; Turnbow & Franklin 1980; Ulrich 1915: 200; Wichmann 1954: 503–521, 1955a: 97; Wolcott 1948: 383; Wood, S. L. 1957c: 403, 1957e: 1273, 1960a: 51, 1961c: 2, 1977a: 73, 1982b: 827; Woodruff & Hamlen 1974; Yunus & Hua 1980: 230; Yust & Cavallos 1955: 432–436. **(tx)** Beal & Massey 1945: 152–171; Beeson 1929: 245–247, 1935: 108, 1938: 291, 1940: 201; Blackman 1922b: 117–119; Blandford 1892b, 1893c: 7–12, 1894d: 118, 1896b: 226, 1898b: 197, 217–218; Blatchley & Leng 1916: 616–622; Bright 1968b: 1312, 1972d: 81, 95, 1976d: 132, 136, 1985c: 173; Browne 1955: 355, 1962b; Chamberlin 1939: 451–456; Eggers 1920: 125, 1923a: 179, 1929e: 42, 1933b: 3, 1934: 83–84, 1940a: 108, 1941a: 107, 1943a: 387; Eichhoff 1868c: 146, 1878b: 384–388; Erichson 1836: 63; Fabricius 1801: 388; Ferrari 1867a: 23–24, 1867b: 107, 1868: 253; Gerstaecker 1871: 76, 1873; Hagedorn 1910a: 152–154, 1910b: 8; Hopkins 1915b: 62, 67, 1915c: 218; Kirsch 1875: 284; Lacordaire 1866: 383; LeConte 1868: 160, 1876: 359–360; Nobuchi 1978a:pl. 4, 1983: 302; Nunberg 1962: 223–237, 1963: 358, 1968: 272; Pedrosa-Macedo & Schonherr 1985: 29; Perkins 1900: 173, 177; Powell, W. 1980: 29; Sampson 1914: 387, 1923: 287, 1925: 3; Samuelson 1981: 56; Schaufuss 1897a: 210, 1897b: 103, 1905: 8; Schedl 1931: 345–346, 1939a: 468, 1939g: 170, 1939j: 565, 1941d: 381, 1950c: 205, 1950d: 9, 13, 15, 1950e: 212, 1951g: 1103, 1951h: 285–287, 1952a: 444, 1952g: 52–53, 1953g: 242, 1954d: 872, 1954e: 52, 1955c: 31, 1955d: 269, 271, 1955f: 259, 1955i: 212, 1957b: 151, 1957c: 325, 1957d: 15–16, 84, 1958c: 1, 1958i: 215, 1960h: 11, 1961c: 8, 1962j: 425–458, 1962k: 245, 1963j: 482, 1972d: 152, 1977b: 185; Schwarz 1878: 468, 1885: 40, 1892: 78–79, 1896: 16; Swaine 1909: 154; Terra 1987: 25; Wood, S. L. 1957c: 403, 1960a: 51, 65–66, 1982b: 827; Zimmermann 1868: 145.
- trypanacoides* Wollaston 1867: 114 (*Tomicus*).
 Syntypes ♀; S. Iago, et Fogo, Cape Verde Islands; BMNH, London. Synonymy: Browne 1955: 355, Schedl 1960h: 9.
- References: **(ds)** Beeson 1938: 291; Blackwelder 1947: 780. **(tx)** Browne 1955: 355; Eggers 1929e: 48; Schedl 1960h: 9; Wollaston 1867: 114.
- fuscatus* Eichhoff 1868a: 400. Holotype ♀; Carolina, Columbia; Hamburg Museum, lost. Synonymy: Schedl 1960h: 8.
- References: **(ay)** Hopkins 1894g. **(cn)** Blackman 1950; Chamberlin 1924, 1939: 453–454; Cleare 1924: 65–68; Davis 1895; Doane et al. 1936; Felt 1906: 752; Hubbard 1897b: 21; Kleine 1932a: 307; Packard 1890: 93; Smith, J. B. 1900: 363; Swaine 1918a: 127–128. **(ec)** Chamberlin 1939: 453–454; Felt 1906: 752; Steinhaus 1946: 404. **(hb)** Beal & Massey 1945: 155–156; Blackman 1922b, 1950; Chamberlin 1939: 453–454; Clittenden 1890; Doane et al.

1936; Felt 1906: 752; Hopkins 1894g; Hubbard 1897b: 21–22; Kleine 1932a: 307; Packard 1890: 93; Pierce, W. D. 1907: 291; Schwarz 1891e: 78, 1894a: 16; Swabey 1935: 6; Swaine 1918a: 127–128. **(ds)** Anonymous 1926c: 520; Beal & Massey 1945: 155–156; Beeson 1935a, 1935b: 108, 1938b: 292; Bielz 1851; Blackman 1922b, 1950; Blackwelder 1947: 779; Blandford 1898b; Blatchley & Leng 1916: 622; Chamberlin 1939: 453–454; Chittenden 1890; Ferrer 1942; Fleutiaux & Salle 1890: 457; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 104; Henshaw 1885: 148; Hoffmann 1940: 61, 1942: 13; Hopkins 1893a: 135, 1893b: 210; Hubbard & Schwarz 1898a: 666; Kleine 1913b: 161, 1914b: 343, 372, 386, 1932a: 307, 1934a: 173; Leng 1920: 342; Leonard 1928: 520; Martorell 1945: 471–472; Numberg 1952: 20, 27, 1965b: 20, 1971: 58, 1972b: 198; Schwarz 1878d: 468, 1886: 40, 1890: 87, 1891e: 78, 1894: 16; Smith, J. B. 1900: 363, 1910: 402; Swabey 1935: 6; Swaine 1909: 154. **(tx)** Beal & Massey 1945: 155–156; Beeson 1929: 246–247, 1935a, 1935b: 108; Blackman 1922b: 116–119; Blandford 1898b: 197, 217; Blatchley & Leng 1916: 622; Chamberlin 1939: 453–454; Eggers 1932b: 303; Eichhoff 1868a: 400, 1878b: 386; Hagedorn 1910a: 154; Hopkins 1915b: 62, 67; Hubbard 1897b: 21; LeConte 1868: 160, 1876: 359–360, 1878a: 468; Numberg 1952: 20, 27, 1963: 353, 1964: 20, 1965b: 27, pl. 2, 1971: 64, 66; Schedl 1940a: 367–368, 1960h: 8; Schwarz 1886: 40; Swaine 1909: 154, 1918a: 127–128; Wood, S. L. 1957c: 403, 1960a: 51, 64; Zimmermann 1868: 145.

impressus Eichhoff 1868a: 400. Syntypes ♀; Amer. bor. (Massachusetts); Hamburg Museum, lost. Synonymy: Schedl 1960h: 8.

References: **(cn)** Swaine 1918a: 127–128. **(hb)** Chamberlin 1939: 453; Ostmark 1968; Swaine 1918a: 127–128. **(ds)** Blatchley & Leng 1916: 622; Chamberlin 1925, 1939: 453; Gemminger & Harold 1875: 2686; Hagedorn 1910d: 105; Henshaw 1885: 148; Kleine 1913b: 161, 1914b: 392; Leng 1920: 342; Ostmark 1968; Packard 1890: 718; Swaine 1909: 154. **(tx)** Blatchley & Leng 1916: 622; Chamberlin 1939: 453; Eichhoff 1868a: 400, 1878b: 389; Hagedorn 1910a: 154; Hopkins 1915b: 62; LeConte 1868: 160, 1876: 359–360; Olivier 1795b: 12; Schedl 1950i: 146, 1960h: 8; Swaine 1909: 154, 1918a: 127–128.

confusus Eichhoff 1868a: 401. Lectotype ♀; Valli do Caracas, Venezuela; IRSNB, Brussels, designated by Wood 1982b: 16. Synonymy: Schedl 1957d: 16.

References: **(bv)** Aulmann 1911. **(cn)** Blackman 1950; Cleare 1924: 65–68; Costa Lima 1956; Dash 1917: 56–60; Doane et al. 1936; Froggatt 1926a; Chesquiere 1933a; Cowdley

1914: 36–58, 1918: 42–51; Green 1916: 608–636; Kleine 1932a: 307; Laboy 1913: 1–153; Lesne 1907: 1236; Mayne & Donis 1951: 325; Packard 1890: 713; Small 1921: 38; Ulrich 1915: 200–203. **(ec)** Kleine 1929: 150; Mayne & Donis 1951. **(hb)** Auhmann 1911; Beeson 1929; Blackman 1922b: 117–119, 1950; Chamberlin 1939: 454; Costa Lima 1956; Doane et al. 1936; Froggatt 1926a; Kleine 1932a: 307; Packard 1890: 713; Viana 1964: 123. **(ds)** Beeson 1929, 1935a, 1935b, 1938b, 1940; Blackman 1922b, 1950; Blackwelder 1947: 779; Blandford 1898b: 197, 217; Bruch 1914a; Bruner et al. 1945; Callan 1954; Chamberlin 1925, 1939: 454; Costa Lima 1956; Ferrer 1942; Fleutiaux & Salle 1890: 457; Gemminger & Harold 1872: 2685; Chesquiere 1933a; Hagedorn 1907a, 1907b, 1910d: 100; Hargreaves 1925: 21–28, 1937: 510; Hayward 1942; Herms 1926: 243–274; Kleine 1912a: 162, 212, 1913b: 160, 1914b: 296, 302, 323, 326, 332, 337, 339–340, 344, 354, 372, 379, 1932a: 307, 1934a: 172; Kolbe 1897: 15, 283, 1910: 41; Lepesme et al. 1948: 647; Martorell 1945: 470–471; Murayama 1936b: 115; Numberg 1971: 58, 67, 1972b: 197; Roberts 1960e, 1960f; Sampson 1914: 387; Schedl 1938d: 451; Steinhausen 1956: 48; Swezey 1941: 123, 1954: 162; Tucker 1952: 347. **(tx)** Aulmann 1911, 1912; Beeson 1929: 245–246, 1935a: 106, 118, 1935b, 1938: 291, 1940: 201; Blackman 1922b: 117–119; Blandford 1898b: 197, 217; Chamberlin 1939: 454; Costa Lima 1956; Eggers 1920: 125, 1929e: 48, 1933b: 3, 33, 1940a: 108, 1941a: 107, 1941d: 179, 1943a: 387; Eichhoff 1868a: 401, 1878b: 384; Hagedorn 1905a: 412, 1907a, 1907b, 1910a: 153, 1910b, 1912a: 344–355, 1913b: 256; Hopkins 1915b: 62; Keler 1928: 29; Kirsch 1875: 284; Lara & Shenefelt 1965: 171–172, 176; Numberg 1971: 67; Perkins 1900: 177; Sampson 1914: 387; Schaufuss 1897a: 210, 1897b: 103; Schedl 1931c: 346, 1938d: 451, 1939a: 468, 1939g: 170, 1939j: 565, 1940a: 361–363, 1940c: 208, 1941d: 381, 1941f: 116, 1942b: 147–149, 1948d: 37, 1948f: 261–262, 1950c: 205, 1950d: 9, 13, 15, 18, 1950e: 212, 1950f: 40–41, 1950h: 105, 1951b: 376, 1951e: 39, 1951h: 286, 1951k: 139, 1951m: 72–74, 1952a: 444, 1952h: 70, 1952j: 4–5, 1953d: 71, 1953g: 242, 1954d: 872, 1954e: 47, 52, 1955b: 278, 285–286, 1955d: 268, 1955f: 259, 1957d: 16, 1960h: 8; Steinhausen 1956: 48; Wood, S. L. 1957c: 403, 1960a: 64.

retusicollis Zimmermann 1868: 146. Holotype ♀; Maryland; MCZ, Cambridge. Synonymy: Bright 1868b: 1312.

References: **(cn)** Hubbard 1897b: 20; Packard 1890: 93. **(hb)** Chittenden 1890; Hubbard 1897b: 20; Packard 1890: 93; Pierce 1907: 291. **(ds)** Chittenden 1890; Gemminger & Harold

- 1872: 2686; Hagedorn 1910d: 110; Henshaw 1885: 148; Kleine 1913b: 162, 1914b: 396; Leng 1920: 342; Schwarz 1886: 41, 1895b: 171; Swaine 1909: 156. **(tx)** Bright 1968b: 1312; Eichhoff 1878b: 372; Hagedorn 1910a: 156; Hubbard 1897b: 20; LeConte 1868: 160, 1876: 359–360; Schwarz 1886: 41–42, 1895b: 171; Swaine 1909: 156; Zimmermann 1868: 146.
- bispinatus* Eichhoff 1868c: 146. Syntypes 8 ♀; Brazil; IRSNB, Brussels. Synonymy: Schedl 1960h: 8.
References: **(hb)** Viana 1964: 123. **(ds)** Blackwelder 1947: 779; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 337, 340, 344; Nunberg 1958a: 481, 1960a: 294, 1961a: 330, 1962: 223; Viana 1964: 123; Wolcott 1936: 318. **(tx)** Eggers 1932d: 303, 1934a: 84; Eichhoff 1868c: 146, 1878b: 387; Hagedorn 1910a: 152; Hopkins 1915b: 62; Kirsch 1875: 283; Nunberg 1956a: 144, 1958a: 481; Schedl 1931c: 346, 1938h: 463, 1938i: 28, 1939m: 170, 1948d: 37, 1951h: 285, 287, 1952a: 446, 1958f: 35, 1960h: 8, 1966f: 76.
- amplicolis* Eichhoff 1869a: 280. Syntypes ♂; Puerto Rico; those in Hamburg Museum, lost, 1 in IRSNB, Brussels. Synonymy: Schedl 1960h: 8.
References: **(ds)** Blackwelder 1947: 779; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 98; Kleine 1913b: 160; Wolcott 1936: 318, 1948: 383. **(tx)** Eichhoff 1869a: 280, 1878b: 388; Hagedorn 1910a: 152; Schedl 1960h: 8.
- insularis* Sharp 1885: 193. Syntypes ♀; Hawaii; BMNH, London. Synonymy: Schedl 1941f: 116.
References: **(ds)** Beeson 1938: 291; Sampson 1914: 387. **(tx)** Eggers 1929e: 48; Sampson 1914: 387; Schedl 1941f: 116, 1943d: 65, 1948: 383, 1960h: 8; Sharp 1885: 193, 1892: 193; Wood, S. L. 1960a: 64.
- tanganus* Hagedorn 1910b: 8. Syntypes ♀; Tanga, Deutsch-Ostafrika; Hamburg Museum, lost. Synonymy: Schedl 1960h: 9.
References: **(ds)** Beeson 1938: 291; Hagedorn 1910d: 112; Kleine 1913b: 163, 1914b: 323. **(tx)** Eggers 1920: 125, 1929e: 48; Hagedorn 1910a: 157, 1910b: 8; Schedl 1952c: 65, 1960h: 8–9, 1962j: 426.
- soltai* Hopkins 1915b: 66. Holotype ♀; New Orleans, Louisiana; USNM, Washington. Synonymy: Bright 1968b: 1312.
References: **(ds)** Blatchley & Leng 1916: 621; Leng 1920: 342. **(tx)** Blatchley & Leng 1916: 621; Bright 1968b: 1312; Hopkins 1915b: 66.
- nyssae* Hopkins 1915b: 66. Holotype ♀; Nichols, South Carolina; USNM, Washington. Synonymy: Schedl 1960h: 9.
References: **(cn)** Doane et al. 1936. **(hb)** Chamberlin 1939: 455–456; Doane et al. 1936. **(ds)** Blatchley & Leng 1916: 622; Chamberlin 1939: 455–456; Kleine 1934a: 175; Leng 1920: 342. **(tx)** Blatchley & Leng 1916: 622; Chamberlin 1939: 455–456; Hopkins 1915b: 66–67; Schedl 1950i: 146, 1960h: 8–9, 1962j: 426.
- hopkinsi* Beeson 1929: 246. Holotype ♀; Upolu: Malololelei [Samoa]; BMNH, London. Synonymy: Schedl 1960h: 8.
References: **(ds)** Beeson 1938b: 292. **(tx)** Beeson 1929: 246–247; Schedl 1951k: 140, 1960h: 8, 1962j: 426.
- argentinensis* Schedl 1931c: 345. Holotype ♀; Argentina, San Ignacio; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1960h: 8.
References: **(ds)** Blackwelder 1947: 779; Santoro 1957b: 25. **(tx)** Eggers 1934a: 84; Schedl 1931c: 345, 1938h: 463, 1938i: 28, 1951h: 287, 1952a: 446, 1960h: 8, 1962j: 426, 1979c: 25.
- rufopiceus* Eggers 1932d: 303. Holotype ♀; Congostaat (Elisabethville); MRCB, Tervuren. Synonymy: Wood 1989: 176.
References: **(hb)** Loytyniemi, Beaver, & Loytyniemi 1984. **(ds)** Beaver & Loytyniemi 1985a: 76; Browne 1986b: 334; Ferreira 1965: 1125; Nunberg 1961: 331; Schedl 1959p: 21, 1962j: 458, 1962k: 1102, 1969d: 8, 1977b: 190. **(tx)** Eggers 1932d: 303; Nunberg 1963b: 50–51, pl. 25; Schedl 1960h: 11, 1961e: 147, 1962j: 458, 1977b: 190, 1979c: 215; Wood, S. L. 1989: 176.
- schedli* Eggers 1934a: 83. Holotype ♀; 12 km from Atlantic Ocean, Limon, Costa Rica; USNM, Washington. Synonymy: Schedl 1960h: 9.
References: **(tx)** Anderson, W. H. & Anderson 1971: 29; Eggers 1934a: 83; Nunberg 1959a: 437; Schedl 1940c: 208, 1948f: 261–262, 1960h: 8, 1962j: 426.
- nesianus* Beeson 1940: 200. Holotype ♀; Society Islands: Tahiti, Taohiri, Mt. Aorai Trail; BPBM, Honolulu. Synonymy: Beaver 1991: 95.
References: **(tx)** Beaver 1991: 95; Beeson 1940: 200–201.
- notatus* Eggers 1941a: 107. Holotype ♀; 3–Riv., Guadeloupe; USNM, Washington. Synonymy: Schedl 1960h: 8.
References: **(tx)** Anderson, W. H. & Anderson 1971: 22; Eggers 1941a: 107; Nunberg 1959a: 432; Schedl 1960h: 8, 1962j: 426, 1979c: 171.
- subitus* Schedl 1948f: 280. Holotype ♀; Mexico, Chiapas; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1960h: 9.
References: **(tx)** Santoro 1966a; Schedl 1948f: 280, 1960h: 8–9, 1962j: 426, 1979c: 242.
- festivus* Eichhoff 1875: 202. Syntypes ♀; Japan; IRSNB, Brussels.
Distribution: Asia (Japan/Ryukyu Islands).
Hosts: *Pinus densiflora*.
References: **(cn)** Murayama 1954a: 11. **(ds)** Blandford 1894c; Hagedorn 1910d: 104; Kleine 1913b:

- 161, 1914b: 260; Murayama 1954a: 11, 1954b: 177, 1955: 100; Nobuchi 1966d: 29, 1985c: 24. (tx) Blandford 1894d; Eichhoff 1875: 202, 1877a: 125, 1878b: 366; Hagedorn 1910a: 154; Murayama 1954b: 177, 1955: 100; Nobuchi 1966d: 29; Schedl 1934f: 1646, 1960b: 164.
- ficus** Eggers 1927a: 193. Syntypes ♀; Belg.-Congo, Barumbu; MRCB, Tervuren and Eggers Collection, in NHMW, Wien.
Figures: Nunberg 1963b: pl. 14, figs. 1–6.
Distribution: Africa (Fernando Poo/ “French West Africa”/ Ghana/ Ivory Coast/ Zaire).
Hosts: *Acacia pennata*, *Anthonata macrophyllum*, *Camoensia maxima*, *Chrysophyllum africanum*, *Dialium pachyphyllum*, *Ficus mucuso*, *Ficus seretii*, *Hevea brasiliensis*, *Panda oleosa*, *Pentaclethra macrophylla*, *Pterocarpus tinctorius*, *Thalia geniculata*, *Theobroma cacao*.
References: (bv) Schedl 1960f: 53. (cn) Ghesquiere 1933a: 27–36. (cc) Schedl 1962j: 320. (hb) Schedl 1962j: 320. (ds) Ghesquiere 1933a: 27–36, 1933b: 777–786; Kleine 1934a: 173; Mayne & Donis 1962: 318; Schedl 1960f: 40, 1961m: 84, 1962j: 320, 1967e: 216, 1971g: 193, 1972e: 283. (tx) Beeson 1935: 114; Eggers 1927a: 193–194; Nunberg 1963b: 31, pl. 14; Schedl 1954d: 872, 1957e: 880, 1961m: 84, 1962j: 320, 1979c: 96.
- figuratus** Schedl 1959a: 508. Syntypes ♀; Ceylon: Millawitiya Estate; Schedl Collection in NHMW, Wien.
Distribution: Asia (Sri Lanka).
References: (ds) Schedl 1959a: 508. (tx) Schedl 1959a: 508, 1979c: 96.
- fischeri** Hagedorn 1908: 380. Syntypes ♀; Sumatra-Palembang; Hamburg Museum, lost.
Distribution: Indonesia (Borneo, Sumatra).
Hosts: *Sarcocephalus cordatus*.
Notes: (1) Schedl 1979c: 97 (neotype designation invalid).
References: (cn) Mathur & Singh 1961a: 26. (ds) Beeson 1930, 1961: 304; Hagedorn 1910d: 104; Kleine 1913b: 161, 1914b: 286; Mathur & Singh 1961a: 26. (tx) Beeson 1930: 58; Eggers 1923a: 203–204, 1927b: 407; Hagedorn 1908: 380, 1910a: 154; Sampson 1912: 249; Schedl 1940b: 441, 1954c: 154, 1979c: 97.
- flavipennis** Schedl 1979g: 107. Holotype ♀; Papua [New Guinea]; Bulolo, Morobe Dist., Upper Manki L. A.; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1979g: 107.
- flavopilosus** Schedl 1936g: 533. Holotype ♀; New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (ds) Schedl 1936g: 533. (tx) Schedl 1936g: 533–534, 1955b: 300, 1979c: 97.
- foederatus** Schedl 1963f: 58. Holotype ♀; Suriname, Dirkshoop und Maripahenevel; Schedl Collection in NHMW, Wien.
Distribution: South America (Suriname).
References: (tx) Schedl 1963f: 58, 1979c: 98.
- formosae** Wood 1992b: 80. Holotype ♀; Hualien (Formosa) to Yatsushiro (Japan), imported; BMNH, London, automatic.
Distribution: Asia (Taiwan).
References: (tx) Wood, S. L. 1992b: 80.
- formosanus** Browne 1981a: 131. Holotype ♀; Hualien (Formosa) to Yatsushiro (Japan), imported, preoccupied by Eggers 1930: 186.
References: (tx) Browne 1981a: 131; Wood, S. L. 1992b: 80.
- fukiensis** Eggers 1941b: 225. Holotype ♀; Fukien (Kuatun, 2300 m); Alexander König Museum, Bonn.
Distribution: Asia (Fujian in China/ Nepal).
References: (ds) Eggers 1941b: 225; Schedl 1953e: 29, 1973b: 211.
- fulvulus** Schedl 1942d: 35. Lectotype ♀; Sumatra, Padang; Schedl Collection in NHMW, Wien, automatic, designated by Schedl 1979c: 102.
Distribution: Indonesia (Sumatra).
Notes: *Myristica fragrans*.
References: (hb) Kalshoven 1959c: 143. (ds) Kalshoven 1959c: 143. (tx) Schedl 1942d: 35–37, 1979c: 101–102.
- fulvus** Schedl 1939f: 48. Lectotype ♀; Sumatra, Padang; Schedl Collection in NHMW, Wien, preoccupied by Murayama 1936, designated by Schedl 1979c: 102.
References: (tx) Schedl 1939f: 48, 1942d: 35–37, 1979c: 101–102.
- fuyugei** Schedl 1973f: 74. Holotype ♀; Abaleti, Rossel Isl., M. Bay Dist. [New Guinea]; AMNH, New York.
Distribution: New Guinea.
References: (tx) Schedl 1973f: 74.
- ganshoensis** Murayama 1952a: 16. Holotype ♀; Gansho, Izu Peninsula, Shizuoka; Murayama Collection in USNM, Washington.
Distribution: Asia (Japan).
Hosts: *Castanea crenata*.
References: (ds) Murayama 1952a: 16, 19, 1954b: 177; Nobuchi 1985c: 24. (tx) Murayama 1952a: 16, 19, 1954b: 177.
- geayi** Hagedorn 1905a: 413. Lectotype ♀; Camopi, French Guiana; MNHN, Paris, designated by Wood 1982b: 820.
Distribution: North America (Costa Rica), South America (Brazil/ Cayenne/ Colombia/ Guyana/ Venezuela).
Hosts: *Sloanea multiflora*.
References: (ds) Blackwelder 1947; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 339; Schedl

- 1972g: 45. (**tx**) Eggers 1933b: 26; Hagedorn 1905a: 413, 1910a: 154; Wood, S. L. 1982b: 820.
- gezei** **Lepesme** 1942c: 120. Holotype ♂; Cameroun: Mont Etinde, 1000–1100 m; MNHN, Paris.
Distribution: Africa (Cameroun).
References: (**en**) Grandi 1951. (**hb**) Grandi 1951; Paulian 1949a: 986. (**tx**) Jeannel 1949: 986; Lepesme 1942c: 120; Schedl 1962j: 576.
- gibber** **Schedl** 1961e: 145. Holotype ♀; Madagascar, Perinet; IRSM, Madagascar.
Distribution: Madagascar.
Hosts: *Dalbergia pterocarpifolia*.
References: (**ds**) Schedl 1977b: 196. (**tx**) Schedl 1961e: 145, 1965c: 74, 1977b: 196, 1979c: 104.
- glabratus** **Browne** 1983a: 560. Holotype ♀; Viru Harbour (Solomon Islands) to Nagoya (Japan), imported; BMNH, London.
Distribution: Solomon Islands.
Hosts: *Terminalia* sp.
References: (**ds**) Ohno et al. 1989: 62. (**tx**) Browne 1983a: 560.
- glabratus** **Eichhoff** 1877a: 127. Syntypes ♀; Japan; IRSNB, Brussels.
Figures: Nobuchi 1978a: pl. 3.
Distribution: Asia (Bonin Islands/ Burma/ Assam, Bengal in India/ Japan/ Taiwan).
Hosts: *Lindera latifolia*, *Litsaea elongata*, *Shorea robusta*.
References: (**en**) Mathur & Singh 1961a: 46. (**ec**) Beeson 1923. (**hb**) Beeson 1923. (**ds**) Beeson 1923, 1930, 1961: 305; Blandford 1894c; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 260, 279; Mathur & Singh 1961a: 46; Murayama 1936a: 132, 1954b: 179; Nobuchi 1967: 22, 1978: 36; Nobuchi & Ono 1973: 182; Ohno et al. 1988a: 94; Schedl 1971c: 362, 1975a. (**tx**) Beeson 1930: 236; Blandford 1894d; Eichhoff 1877a: 127, 1878b: 381; Hagedorn 1910a: 154; Murayama 1936a: 132–133, 1954b: 179; Nobuchi 1978a: pl. 3; Schedl 1934f: 1646.
- gorggae** **Schedl** 1973e: 91. Holotype ♀; New Ireland District, Papontamon; CSIRO, Canberra.
Distribution: New Ireland Island.
Hosts: *Eucalyptus deglupta*, and *Gorgga* log.
References: (**tx**) Schedl 1973e: 91, 1979c: 106.
- granatus** **Schedl** 1979a: 161. Holotype ♀; Brisbane, Queensland, Australia; Schedl Collection in NHMW, Wien.
Distribution: Australia (Queensland).
References: (**tx**) Schedl 1979a: 161.
- grandis** **Eichhoff** 1869a: 281. Holotype ♀; Colombia; IRSNB, Brussels.
Distribution: North America (Costa Rica), South America (Colombia).
Hosts: Large log.
References: (**hb**) Wood, S. L. 1982b: 821. (**ds**) Blackwelder 1947: 779; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 343; Wood, S. L. 1982b: 821. (**tx**) Eggers 1933b: 26; Eichhoff 1869a: 280–281, 1878b: 350; Hagedorn 1910a: 154; Schedl 1979c: 106; Wood, S. L. 1982b: 821.
- graniger** **Schedl** 1955b: 303. Holotype ♀; New Guinea, Berlinhafen; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (**tx**) Schedl 1955b: 281, 303, 1955k: 145.
- granulipes** **Schedl** 1973e: 91. Holotype ♀; Mogova, Goodenough Island, Milne Bay District [New Guinea]; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Pterocarpus indicus*.
References: (**tx**) Schedl 1973e: 91, 1979c: 112.
- granurus** **Browne** 1980a: 376. Holotype ♀; Buru Island (Moluccas) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Buru Island).
Hosts: *Shorea* sp.
References: (**tx**) Browne 1980a: 376.
- gratiosus** **Schedl** 1975f: 366. Holotype ♀; Minj Golf Course, Western Highlands District; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
Hosts: *Araucaria cunninghamii*.
References: (**tx**) Schedl 1975f: 366, 1979c: 112.
- gratus** **Schedl** 1964g: 248. Holotype ♀; Sarawak, Semengoh; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
References: (**tx**) Schedl 1964g: 248, 1979c: 112.
- gravelyi** **Wichmann** 1914a: 411. Syntypes 2 ♀; Kobo, 400 ft.; not given.
Distribution: Asia (Bengal in India).
Hosts: *Symplocos theaeifolia*.
References: (**ds**) Beeson 1961: 305. (**tx**) Wichmann 1914a: 411–412.
- grossmanni** **Schedl** 1952d: 362. Holotype ♀; in Holzer aus Columbien nach Hamburg importiert; Schedl Collection in NHMW, Wien.
Distribution: South America (Colombia/ Suriname).
Hosts: *Dialyanthera otoba*, *Virola surinamensis*.
References: (**tx**) Schedl 1952d: 362, 1979c: 113.
- acuminatus** **Schedl** 1970e: 94. Nied. Guayana, Para Dist.; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 177.
References: (**tx**) Schedl 1970e: 94, 1979c: 113; Wood, S. L. 1989: 177.
- haberkorni** **Eggers** 1920: 43. Lectotype ♀; Anani, Deutsch-Ostafrika; USNM, Washington, designated by Anderson & Anderson 1971: 14.
Distribution: Africa (Tanzania), Asia (Bangladesh/ Burma/ Hainan Island in China/ India/ Malaya/ Sri Lanka/ Taiwan/ Vietnam), Indonesia (Java).
Hosts: *Albizia moluccana*, *Artocarpus dadah*, *Coffea liberica*, *Dalbergia latifolia*, *Eugenia jambolana*, *Mangifera indica*, *Melanorrhoea*

curtisii, *Parkia speciosa*, *Piper* sp., *Salix tetrasperma*, *Shorea maxwelliana*, *S. ovata*, *S. robusta*, *Swietenia mahogoni*, *Tectona grandis*, *Terminalia myriocarpa*, *Theobroma cacao*, *Toonia sinensis*, *Tristania whiteana*, *Turpinda pomifera*, *Vitex pubescens*.

References: **(cn)** Frolich & Rodewald 1969: 99; Kalshoven 1932: 252, 1951: 849; Mathur & Singh 1961a: 8, 1961b: 34; Miller et al. 1933: 105–107, 125; Murthy et al. 1965: 5; Speyer 1923: 21; Yunus & Hua 1980: 230. **(ec)** Browne 1958b: 164–182; Norris 1979. **(hb)** Beaver & Browne 1978: 609; Browne 1958b, 1961c: 113; Kalshoven 1951: 849, 1958a: 189, 1959c: 151; Roonwal 1954: 48. **(ds)** Beaver & Browne 1978: 609; Beeson 1930: 237, 271, 1941: 397, 1961: 305; Browne 1958b, 1968a: 132–133; Kalshoven 1932: 252, 1951: 849, 1958a: 189, 249, 1959c: 150–151; Kleine 1934a: 173; Mathur & Singh 1961a: 8, 1961b: 34; Nobuchi 1967: 21; Schedl 1959a: 500, 1962b: 186, 1962j: 268, 1971a: 277, 1974c: 262; Yunna & Hua 1980: 2130. **(tx)** Anderson, W. H. & Anderson 1971: 14; Beeson 1930: 237, 271; Eggers 1920: 43–44, 1923a: 191, 1936d: 626, 632, 1939c: 114; Kleine 1934a: 173; Schedl 1942a: 171, 1942d: 5, 1959a: 500, 1962j: 268.

haddenii Schedl 1933d: 101. Holotype ♀; Mount Maquilung, Laguna, Luzon; Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands (Luzon).

Hosts: *Toonia calantass*.

References: **(ds)** Schedl 1936g: 531, 1966b: 56. **(tx)** Nobuchi 1983: 302; Schedl 1933e: 101, 1979c: 115.

haesitus Schedl 1976a: 74. Holotype ♀; Ter. Anapa, Serra Navio [Brazil]; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: **(tx)** Schedl 1976a: 74.

hagedornianus Schedl 1952k: 164. Syntypes ♀; Kaden Bilin Forest, Tharrawaddy [Lower Burma]; FRI, Dehra Dun, automatic.

Distribution: Asia (Burma/ Bengal in India).

Hosts: *Evodia fraxinifolia*, *Symplocos theaeifolia*, *Tectona grandis*.

References: **(cn)** Mathur & Singh 1961a: 84, 1961b: 14. **(ds)** Mathur & Singh 1961a: 84, 1961b: 14; Pedrosa-Macedo & Schonherr 1985: 31. **(tx)** Pedrosa-Macedo & Schonherr 1985: 31; Schedl 1952k: 164, 1960i: 109.

hagedorni Stebbing 1914: 596. Syntypes ♀; Kaden Bilin Forest, Tharrawaddy [Lower Burma]; FRI, Dehra Dun, preoccupied by Iglesias 1914.

References: **(cn)** Stebbing 1914: 596. **(ec)** Stebbing 1914: 594. **(hb)** Stebbing 1914: 596. **(ds)** Beeson 1930: 237–238, 1961: 305; Kleine 1934a: 173. **(tx)** Beeson 1930: 61–62, 237; Eggers 1930d: 4, 180; Nunberg 1956: 209; Schedl 1952k: 164; Stebbing 1914: 396.

tectonae Nunberg 1956d: 209. Syntypes ♀; Kaden Bilin Forest, Tharrawaddy [Lower Burma]; FRI, Dehra Dun, automatic.

Notes: Kumar & Chandra 1977: 37 (described male).

References: **(tx)** Kumar & Chandra 1977: 37, 48; Nunberg 1956d: 209; Schedl 1960h: 109.

halli Schedl 1954c: 161. Holotype ♀; British North Borneo; BMNH, London.

Distribution: Indonesia (Sarawak in Borneo).

References: **(tx)** Schedl 1954c: 161.

hashimotoi Browne 1986a: 95. Holotype ♀; New Guinea: Fak fak to Nagoya (Japan), imported; BMNH, London.

Distribution: New Guinea.

References: **(tx)** Browne 1986a: 96.

hatanakai Browne 1983a: 559. Holotype ♀; Tatau (Sarawak) to Nagoya (Japan), imported; BMNH, London.

Distribution: Indonesia (Sarawak in Borneo).

Hosts: Meranti log.

References: **(ds)** Olmo et al. 1987: 89. **(tx)** Browne 1983a: 559.

hawaiiensis Perkins 1900: 175. Lectotype ♀; Hawaii, Hilo; BMNH, London, designated by Samuelson 1981: 74.

Figures: Nunberg 1959a: pl. 22, figs. 5–6, Samuelson 1981: 74.

Distribution: Hawaiian Islands (Hawaii, Oahu).

Hosts: *Cheirodendron* sp., *Dubautia laxa*, *Pipturus albidus*, *Tetraplasandra* spp.

References: **(ds)** Beeson 1938b: 292; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 303; Samuelson 1981: 74; Swezey 1941: 121, 1954: 14. **(tx)** Hagedorn 1910a: 154; Nunberg 1959a: 427; Perkins 1900: 175; Samuelson 1981: 63, 74; Schedl 1941f: 112.

hiika Samuelson 1981: 75. Holotype ♀; Hawaii: upper Hamakua Ditch Trail; BPBM, Honolulu.

Figures: Samuelson 1981: 63.

Distribution: Hawaiian Islands (Hawaii).

Hosts: *Cheirodendron* sp.

References: **(tx)** Samuelson 1981: 63, 75.

hirtipes Schedl 1969c: 53. Holotype ♀; N.E. Burma: Kambaiti, 2000 m; Schedl Collection in NHMW, Wien.

Distribution: Asia (Burma).

References: **(tx)** Schedl 1969c: 53, 1979c: 118.

hopeae Browne 1986a: 96. Holotype ♀; New Guinea: Fak fak to Nagoya (Japan), imported; BMNH, London.

Distribution: New Guinea.

Hosts: *Hopea* sp. log.

References: **(tx)** Browne 1986a: 96.

horridatus Wood 1967c: 135. Holotype ♀; San Isidro del General, San Jose Prov., Costa Rica; Wood Collection.

Distribution: North America (Costa Rica/Panama), South America (Colombia).

Hosts: *Citrus sinensis*, *Theobroma cacao*.

References: (hb) Wood, S. L. 1982b: 797. (ds) Wood, S. L. 1982b: 797. (tx) Wood, S. L. 1967c: 135, 1982b: 797.

horridicus Wood 1967c: 136. Holotype ♀; Reyes, Bolivia; Wood Collection.

Distribution: South America (Bolivia).

References: (tx) Wood, S. L. 1967c: 136.

horridulus Browne 1961a: 307. Holotype ♀; Sarawak: Bako National Park; BMNH, London. Distribution: Indonesia (Sarawak in Borneo).

References: (ds) Browne 1965a: 189; Parsons 1963: 352. (tx) Browne 1961a: 307, 1965a: 189.

horridus Eichhoff 1869a: 282. Lectotype ♀; Teapa, Mexico; IRSNB, Brussels, designated by Wood 1982b: 796.

Figures: Nunberg 1968a: pl. 1.

Distribution: North America (El Salvador/ Guatemala/ Tabasco, Veracruz in Mexico/ Texas in USA).

Hosts: *Cassia* sp., *Hevea brasiliensis*.

References: (ds) Atkinson & Equihua 1985b: 237, 1986, 1988: 102; Blackwelder 1947: 780; Blandford 1898b: 195, 203; Estrada & Atkinson 1988: 207; Ferrer 1942; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 354, 371; Schedl 1963c: 160, 1966f: 77, 1972g: 38, 1977e: 43; Wood, S. L. 1961c: 2, 1982b: 796. (tx) Blandford 1898b: 195, 203; Eichhoff 1869a: 282, 1878b: 343; Hagedorn 1908, 1910a: 154; Nunberg 1968a: 274, pl. 1; Schedl 1940a: 361; Wood, S. L. 1967c: 135–136, 1977b: 211, 1982b: 796.

flohri Schedl 1972g: 69. Holotype ♀; Mexico; Schedl Collection in NHMW, Wien. Synonymy: Wood 1977b: 211.

References: (tx) Schedl 1972g: 69, 1979c: 98; Wood, S. L. 1977b: 211.

hova Schedl 1953d: 95. Lectotype ♀; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 119.

Distribution: Madagascar.

References: (tx) Schedl 1953d: 95, 1977b: 135, 1979c: 119.

howdenae Bright 1973: 18. Holotype ♀; Hardwar Gap, St. Andrew Parish [Jamaica], 4000 feet; CNCI, Ottawa, automatic.

Figures: Bright 1972d: 95.

Distribution: Antilles Islands (Jamaica).

References: (ds) Bright 1985c: 174. (tx) Bright 1973: 18, 1981c: 158, 1985c: 174.

novus Bright 1972d: 78. Holotype ♀; Hardwar Gap, St. Andrew Parish [Jamaica], 4000 feet; CNCI, Ottawa, preoccupied by Eggers 1923.

References: (tx) Bright 1972d: 95, 1973: 18; McNamara 1977: 200; Schedl 1974f: 332.

brighti Schedl 1974f: 335. Holotype ♀; Hardwar

Gap, St. Andrew Parish [Jamaica], 4000 feet; CNCI, Ottawa, automatic.

Notes: (1) This is an unneeded replacement name, no status.

References: (tx) Bright 1981c: 158; Schedl 1974f: 335.

humanensis Browne 1983d: 33. Holotype ♀; China: Human, Changsha; IZAS, Beijing.

Distribution: Asia (Hunan in China).

References: (tx) Browne 1983d: 33.

hystericoides Browne 1973a: 293. Holotype ♀; Zaire: Nioka; MRCB, Tervuren.

Distribution: Africa (Zaire).

References: (tx) Browne 1973a: 293.

ignobilis Perkins 1900: 180. Lectotype ♀; Hawaii: Hilo, 2000 ft.; BMNH, London, designated by Samuelson 1981: 76.

Distribution: Hawaiian Islands (Hawaii, Lanai).

Hosts: *Freyinetia arborca*.

References: (ds) Beeson 1938b: 292; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 302; Samuelson 1981: 76. (tx) Hagedorn 1910a: 154; Perkins 1900: 180; Samuelson 1981: 56, 76; Schedl 1934g: 177–178, 1959a: 498.

iheringi Iglesias 1914b: 129. Syntypes ♀; Butantan, S. Paulo; not given.

Distribution: South America (Brazil).

Hosts: *Eucalyptus robusta*.

References: (cn) Azavedo 1924b: 180–181. (ds) Blackwelder 1947; Kleine 1934a: 173. (tx) Iglesias 1914b: 128–129.

imbellis Blandford 1898b: 211. Holotype ♀; San Juan, Verapaz, Guatemala; BMNH, London.

Distribution: North America (El Salvador/ Guatemala/ Veracruz in Mexico).

Hosts: *Hevea brasiliensis*.

References: (ds) Blackwelder 1947: 780; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 372. (tx) Blandford 1898b: 211; Hagedorn 1910a: 154.

immersus Schedl 1972i: 52. Holotype ♀; Lakunai, E. New Britain Dist.; CSIRO, Canberra.

Distribution: New Britain Island.

Hosts: *Melochia odorata*.

References: (tx) Schedl 1972i: 52, 1979c: 122.

immitatrix Schedl 1975f: 367. Holotype ♀; Upper Manki logging area, Bulolo, Morobe Dist. [New Guinea]; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1975f: 367, 1979c: 121.

impar Eggers 1927c: 89. Syntypes ♂; Philippinen: Mindanao, Prov. Lanao, Kolambangan; Eggers Collection (not mentioned by either Anderson & Anderson 1971 or Schedl 1979c).

Distribution: Philippine Islands.

References: (ds) Schedl 1966b: 56. (tx) Eggers 1927c: 89–90; Nobuchi 1983: 302.

impexus Schedl 1942c: 184. Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien.

- Distribution: New Guinea.
References: (tx) Schedl 1942c: 184, 1979c: 122.
- improbis Sampson** 1913: 444. Holotype ♀; Darjeeling; BMNH, London.
Distribution: Asia (Xizang [Tibet] in China/ Bengal in India).
Hosts: *Eucalyptus globulus*, *Machilus odoratissima*, *Quercus lamellosa*.
References: (cn) Pierce, W. D. 1917: 154; Stebbing 1914: 600. (ec) Stebbing 1914: 600. (hb) Stebbing 1914: 600. (ds) Beeson 1930: 238, 1961: 305; Kleine 1934a: 173; Pierce, W. D. 1917: 154. (tx) Beeson 1930: 216, 238; Eggers 1930d: 179; Sampson 1913: 444; Schedl 1979c: 122; Stebbing 1914: 600.
- improcerus Sampson** 1921: 33. Holotype ♀; Siam; BMNH, London.
Distribution: Asia (India/ Malaya/ Thailand), Indonesia (Borneo).
Hosts: *Dipterocarpus cornutus*.
References: (cn) Yunus & Hua 1980: 230. (hb) Browne 1961c: 112. (ds) Beaver & Browne 1975: 298; Beeson 1961: 305; Sampson 1921: 33; Yunus & Hua 1980: 230. (tx) Sampson 1921: 33.
- improvidus Schedl** 1935d: 92. Holotype ♀; Venezuela; Schedl Collection in NHMW, Wien.
Distribution: North America (Panama), South America (Venezuela).
References: (hb) Wood, S. L. 1982b: 815. (ds) Blackwelder 1947: 780; Wood, S. L. 1982b: 815. (tx) Schedl 1935d: 92, 1979c: 122; Wood, S. L. 1979b: 136, 1982b: 815.
- acelinis** Wood 1974a: 38. Holotype ♀; Cerro Punta near Volcan de Chiriqui (Baru), Chiriqui, Panama; Wood Collection. Synonymy: Wood 1979b: 136.
References: (tx) Wood, S. L. 1974a: 38, 1979b: 136.
- inaequalis Schedl** 1934d: 87. Lectotype ♀; Java, Mt. Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 123.
Distribution: Asia (Singapore in Malaya), Indonesia (Java).
Hosts: *Desmoncus* sp., *Plectocomia elongata*, Rattan.
References: (hb) Kalshoven 1959c: 139. (ds) Browne 1970: 542; Kalshoven 1935a: 14, 1959c: 138–139. (tx) Schedl 1934d: 87–88, 1939f: 51, 1959a: 502, 1961c: 71, 1979c: 123.
- inarmatus Eggers** 1923a: 209. Lectotype ♀; Tenasserim; USNM, Washington, designated by Anderson & Anderson 1971: 15.
Distribution: Asia (Burma/ India), Indonesia (Sumatra).
Hosts: *Quercus lamellosa*.
References: (ds) Beeson 1930: 238, 1961: 305. (tx) Anderson, W. H. & Anderson 1971: 15; Beeson 1930: 238; Eggers 1923a: 209–210, 1925: 159, 1927a: 189, 1930d: 205, 210; Schedl 1934d: 87.
- inconstans Schedl** 1962j: 271. Holotype ♀; Congostaat; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
References: (tx) Schedl 1962j: 271, 1979c: 123.
- indonesianus Browne** 1984b: 290. Holotype ♀; Lakea (Indonesia) to Kishiwada (Japan), imported; BMNH, London.
Distribution: Indonesia.
Hosts: Meranti log.
References: (ds) Ohno, Yoneyama, & Nakazawa 1987: 94. (tx) Browne 1984b: 290.
- insignis Browne** 1984c: 452. Holotype ♀; Wallace Bay (Sabah) to Nagoya (Japan), imported.
Distribution: Indonesia (Sabah or Sabak Island).
Hosts: *Albizia* sp.
References: (tx) Browne 1984c: 452.
- insitivus Schedl** 1959a: 509. Syntypes ♀; Ceylon: Millawitiya Estate; Schedl Collection in NHMW, Wien.
Distribution: Asia (Sri Lanka).
References: (ds) Schedl 1959a: 509. (tx) Schedl 1959a: 509, 1979c: 125.
- insulindicus Eggers** 1923a: 177. Lectotype ♀; New Guinea (Sudost), Paumotufluss; USNM, Washington, designated by Anderson & Anderson 1971: 16.
Figures: Nunberg 1959a: pl. 23, figs. 5–6.
Distribution: Australia (Queensland), Fiji Islands, New Guinea.
Hosts: *Cardwellia sublimus*, *Elacocarpus* sp., *Endiandra palmerstonii*, *Flindersia acuminata*.
Notes: (3) Schedl 1980b: 186 (described male).
References: (hb) Kalshoven 1959c: 137. (ds) Browne 1974a: 65, 1984b: 286; Kalshoven 1959c: 137; Ohno, Yoneyama, & Nakazawa 1982a: 4; Schedl 1961a: 74, 1980b: 184. (tx) Anderson, W. H. & Anderson 1971: 16; Beeson 1929: 234–235; Eggers 1923a: 177–178, 1927c: 101; Nunberg 1959a: 429; Schedl 1942a: 187, 1942c: 163, 1950f: 40, 1951i: 73, 1969b: 218, 1979c: 126, 1980b: 184–186.
- integer Schedl** 1957d: 93. Holotype ♀; Congo Belge: Kivu, Mt. Kaluzi; MRCB, Tervuren.
Figures: Nunberg 1963b: pl. 18, figs. 3–6.
Distribution: Africa (Kenya/ Zaire).
Hosts: *Eucalyptus botryoides*, *Hypericum lanceolatum*.
References: (cc) Schedl 1958d: 192–194. (hb) Schedl 1962j: 303. (ds) Schedl 1962j: 303. (tx) Nunberg 1963b: 37, pl. 18; Schedl 1957d: 93, 241, 1962j: 303, 1979c: 126.
- interponens Schedl** 1954c: 160. Lectotype ♀; Borneo, Sarawak, Mt. Penrissen, 4500 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 127.
Distribution: Indonesia (Sarawak in Borneo).
References: (tx) Schedl 1954c: 160, 1979c: 127.
- interpunctatus Blandford** 1898b: 206. Holotype ♀; Guatemala, Rio Naranjo; BMNH, London.

Distribution: North America (Guatemala).

References: (**ds**) Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 371. (**tx**) Blandford 1898b: 206; Hagedorn 1910a: 154.

intrusus Blandford 1898b: 213. Lectotype ♀; San Geronimo, Guatemala; BMNH, London, designated by Wood 1982b: 839.

Figures: Schwerdtfeger 1960b: 254.

Distribution: Antilles Islands (Dominican Republic in Hispanola), North America (British Columbia in Canada/ Guatemala/ Honduras/ Chiapas, Distrito Federal, Durango, Jalisco, Mexico, Morelos, Oaxaca, Puebla in Mexico/ Arizona, California, Colorado, District of Columbia, Idaho, Maryland, Montana, New Mexico, North Carolina, Oregon, Pennsylvania, South Carolina, South Dakota, Utah in USA).

Hosts: *Pinus contorta*, *P. coulteri*, *P. jeffreyi*, *P. leiophylla*, *P. mexicana*, *P. ponderosa*, *P. rudis*, *Pseudotsuga menziesii*.

References: (**hb**) Atkinson & Equihua 1985b: 238; Atkinson et al. 1986: 35; Burgos & Saucedo 1983: 101; Furniss, M. M. & Johnson 1987: 381; Wood, S. L. 1982b: 839. (**ds**) Atkinson & Equihua 1985b: 238, 1988: 102; Atkinson et al. 1986: 35; Blackwelder 1948: 780; Bright 1985c: 174; Burgos & Saucedo 1983: 101; Drooz 1985: 374; Fall 1906: 202; Furniss, M. M. & Johnson 1987: 381; Furniss, R. L. & Carolin 1977: 413; Gast et al. 1989: 385; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 372; Snow 1907: 188; Wickham 1898: 312; Wood, S. L. 1982b: 839. (**tx**) Blandford 1898b: 213; Bright 1985c: 174; Hagedorn 1910a: 154; Wood, S. L. 1972e: 198, 1982b: 839.

howardi Hopkins 1915b: 62, 65. Holotype ♀; Washington, D.C. [USA]; USNM, Washington. Synonymy: Wood 1972e: 198.

References: (**hb**) Chamberlin 1939: 453. (**ds**) Baker, W. L. 1972: 271; Blatchley & Leng 1916: 620; Bright 1968b: 1318; Chamberlin 1939: 453; Leng 1920: 342. (**tx**) Blatchley & Leng 1916: 620; Bright 1968b: 1318; Chamberlin 1939: 453; Hopkins 1915b: 65–66; Wood, S. L. 1962: 79, 1972e: 198.

fitchi Hopkins 1915b: 62, 66. Holotype ♀; Hyslop, Long Island [USA]; USNM, Washington. Synonymy: Wood 1962: 79.

References: (**cn**) Blackman 1950; Doane et al. 1936. (**cc**) Savely 1939: 336. (**hb**) Beal & Massey 1945: 159; Blackman 1950; Chamberlin 1939: 453; Doane et al. 1936. (**ds**) Anonymous 1926c: 520; Beal & Massey 1945: 159; Blackman 1950; Blatchley & Leng 1916: 620; Chamberlin 1939: 453; Kleine 1934a: 173; Knull 1934: 212; Leng 1920: 342; Leonard 1928: 520. (**tx**) Beal & Massey 1945: 159; Blatchley & Leng 1916: 620; Bright 1968b: 1318; Chamberlin 1939: 453; Hopkins 1915b: 62, 66; Wood, S. L. 1962: 79.

scopulorum Hopkins 1915b: 62, 66. Holotype ♀; Black Hills, South Dakota [USA]; USNM, Washington. Synonymy: Wood 1972e: 198.

References: (**cn**) Chamberlin 1939: 453; Doane et al. 1936; Keen 1929: 56, 1948: 147; Schuder 1969: 78; Schwerdtfeger 1960b. (**cc**) Becker 1953, 1955; Chamberlin 1939: 453; Keen 1948: 147; Massey 1961: 358; Stephen & Dahlsten 1976: 292. (**hb**) Becker 1953, 1955; Bright & Stark 1973: 77; Chamberlin 1939: 453; Doane et al. 1936; Keen 1929: 56, 1948: 147. (**ds**) Becker 1953: 362; Bright 1968b: 1320; Bright & Stark 1973: 77; Chamberlin 1925, 1939: 453; Keen 1929: 42, 56, 1948: 147; Kirk 1969; Kleine 1934a: 175; Lange 1937: 174; Leng 1920: 342; Schedl 1960a: 75, 1969: 78; Schwerdtfeger 1960b; Wood, S. L. 1948: 75, 1951a: 128, 1972a: 423. (**tx**) Bright 1968b: 1320; Chamberlin 1939: 453; Hopkins 1915b: 62, 66; Keen 1929: 42; Schedl 1952d: 123, 1955g: 46–47; Schwerdtfeger 1960b: 254–256; Wood, S. L. 1972a: 422, 1972e: 198.

ipidia Schedl 1972h: 63. Holotype ♀; 2 km N Ruwong Sawmill, New Ireland Dist., New Guinea. Distribution: Australia, Fiji Islands, New Ireland Island.

Hosts: *Beilschmiedia obtusifolia*, *Canarium* sp.

Notes: (3) Schedl 1975h: 368 (described male).

References: (**bv**) Gray, B. 1974e. (**hb**) Gray, B. 1974c. (**ds**) Schedl 1980b: 184. (**tx**) Schedl 1972h: 63, 1975f: 368, 1979e: 128.

planodeclivis Browne 1974a: 70. Holotype ♀; Fiji: Viti Levu, Galoa; BMNH, London. Synonymy: Schedl 1980d: 122.

References: (**hb**) Roberts 1977a: 264. (**ds**) Browne 1974a: 65, 70; Roberts 1977a: 264. (**tx**) Browne 1974a: 65, 70; Schedl 1980d: 122.

irregularis Eggers 1923a: 211. Holotype ♀; Batoe Insel (Poeloe Pini); Natura Artis Magistra, Amsterdam.

Distribution: Indonesia (Batu Island).

References: (**tx**) Eggers 1923a: 211–212, 1927c: 99; Schedl 1939f: 44.

ishidai Niisima 1909: 156. Holotype ♀; Jozankei, Sapporo, Japan; Nobuchi Collection, Ibaraki.

Distribution: Asia (Japan).

References: (**ds**) Kleine 1913b: 161, 1914b: 261; Murayama 1954b: 179; Nobuchi 1985c: 25. (**tx**) Hagedorn 1910a: 154; Murayama 1954b: 179; Niisima 1909: 153–157; Schedl 1934f: 1646.

jambolanaensis Schedl 1951j: 22. Lectotype ♀; Madagascar, Tsimbazaza; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 129. Distribution: Madagascar.

Hosts: *Eugenia jambolana*.

References: (**hb**) Paulian 1951: 29. (**ds**) Paulian 1951: 29; Schedl 1977b: 197. (**tx**) McNamara 1977: 200; Schedl 1951j: 22, 1977b: 197, 1979c: 129.

- japonicus Nobuchi** 1981b: 150. Holotype ♀; Ohshima, Wakayama, Japan; Nobuchi Collection, Ibaraki.
 Figures: Nobuchi 1981b: 153.
 Distribution: Asia (Japan).
 Hosts: *Castanopsis cuspidata*, *Quercus myrsinaefolia*.
 References: (tx) Nobuchi 1981b: 150–153.
- javanus Eggers** 1923a: 188. Lectotype ♀; Java; USNM, Washington, designated by Anderson & Anderson 1971: 17.
 Figures: Nunberg 1959a: pl. 23, figs. 7–8.
 Distribution: Asia (Malaya), Indonesia (Borneo, Java, Sumatra).
 Hosts: *Adina nubescens*, *Artocarpus* sp., *Dipterocarpus baudii*, *Dryobalanops oblongifolia*, *Eugenia* sp., *Grewia tomentosa*, *Shorea leprosula*, *S. parvifolia*, *S. sumatrana*, *Swietenia macrophylla*, *Xanthophyllum* sp.
 References: (ec) Kalshoven 1960b. (hb) Browne 1961c: 138–139; Kalshoven 1959c: 146, 1960a: 120. (ds) Browne 1961c: 138, 1981b: 599; Kalshoven 1959c: 146; Nobuchi 1979a: 406; Nunberg 1961b: 610; Schedl 1936d: 4, 1974c: 262. (tx) Anderson, W. H. & Anderson 1971: 17; Eggers 1923a: 188–189, 1930d: 198; Nunberg 1959a: 430; Schedl 1933e: 101, 1942d: 5, 1951i: 43, 1954a: 141, 1960h: 109.
- perdix Schedl** 1939e: 351. Lectotype ♀; Malaya, Selangor: Sungei Buloh For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 189. Synonymy: Schedl 1960h: 109.
 References: (cn) Browne 1951. (hb) Browne 1941. (ds) Beeson 1961: 308; Yunus & Hua 1980: 230. (tx) Schedl 1939e: 351–352, 1942a: 171, 1960h: 109, 1979c: 189.
- jongaensis Schedl** 1941d: 404. Lectotype ♀; Mt. Cameroon, Jonga, 5000 ft., Onyanga, 5400 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 130.
 Distribution: Africa (Cameroon).
 References: (tx) Schedl 1941d: 404, 1962j: 305, 1979c: 130.
- justus Schedl** 1931c: 339. Holotype ♀; Java, Buitenzorg; Schedl (1979c: 130) Collection in NHMW, Wien.
 Distribution: Asia (Malaya), Indonesia (Java).
 Hosts: *Cinnamomum* sp.
 References: (ec) Kalshoven 1960b. (hb) Browne 1961c: 115; Kalshoven 1959c: 151, 1960a: 120. (ds) Browne 1955: 356, 1981b: 598; Kalshoven 1959c: 151; Schedl 1971c: 364. (tx) Schedl 1931c: 339, 1953c: 290, 1953f: 81, 1979c: 130.
- kadoyamaensis Murayama** 1934c: 290. Holotype ♀; Kadoyama, Kumamoto pref. and Tarumidzu and Nagao, Kagoshima pref., Kiushu, Japan; Murayama Collection in USNM, Washington.
 Distribution: Asia (Japan/ Taiwan).
 Hosts: *Diospiros kaki*.
 References: (ec) Banno, Mikata, & Kodama 1983: 445. (ds) Choo & Woo 1985: 166; Murayama 1949c: 103, 1954b: 179, 1955: 100, 102; Nobuchi 1967: 22, 1985c: 25. (tx) Murayama 1934c: 290, 1936a: 144, 1954b: 179, 1955: 100, 102.
- kaimochii Nobuchi** 1981b: 143. Holotype ♀; Takimoto, Kumano, Wakayama, Honshu, Japan; Nobuchi Collection, Ibaraki.
 Figures: Nobuchi 1981b: 153.
 Distribution: Asia (Japan).
 Hosts: *Castanopsis cuspidata*.
 References: (tx) Nobuchi 1981b: 143, 153.
- kajangensis Schedl** 1942a: 193. Lectotype ♀; Malaya, Pahang, Kajang; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 131.
 Distribution: Asia (Malaya).
 Hosts: *Canarium* sp., *Shorea leprosula*.
 Notes: (3) Browne 1949b: 893 (lapsus calami corrected).
 References: (hb) Browne 1961c: 107. (tx) Browne 1949b: 893; Schedl 1942a: 193, 1979c: 131.
- kalshoveni (Schedl)** 1934d: 85 (*Notoxyleborus*).
 Lectotype ♀; Java, Mount Gede, 1800 m; Schedl Collection in NHMW, Wien.
 Distribution: Indonesia (Java).
 Hosts: Rattan.
 References: (hb) Kalshoven 1959c: 164. (ds) Browne 1962c: 202; Kalshoven 1959c: 164. (tx) Schedl 1934d: 85.
- katangensis Eggers** 1932d: 297. Holotype ♀; Congostaat (Elisabethville und Katanga: Mulando); MRCB, Tervuren.
 Figures: Nunberg 1963b: pls. 18–19, figs. 1, 7.
 Distribution: Africa (Zaire).
 Hosts: *Garcinia punctata*, *Scorodophloeus zenkeri*.
 References: (hb) Loytyniemi, Beaver, & Loytyniemi 1984; Schedl 1962j: 110. (ds) Beaver & Loytyniemi 1985a: 74, 1989; Ferreira 1965: 1123; Schedl 1962j: 110, 1971c: 365, 1972e: 284. (tx) Beaver & Loytyniemi 1989; Eggers 1932d: 297; Nunberg 1963b: 38, pls. 18–19; Schedl 1953d: 98, 1959p: 20, 1962j: 110–111, 1979c: 131.
- katoi Browne** 1986c: 666. Holotype ♀; Borneo: Kudat (Sabah) to Nagoya (Japan), imported; BMNH, London.
 Distribution: Indonesia (Borneo).
 Hosts: *Dipterocarpus* sp. log.
 References: (tx) Browne 1986c: 666.
- kauaiensis Perkins** 1900: 174. Lectotype ♀; Kauai, Halemanu and above Waimea, 4000 ft.; BMNH, London, designated by Samuelson 1981: 77.
 Figures: Samuelson 1981: 63.
 Distribution: Hawaiian Islands (Kauai).
 Hosts: *Cheirodendron* sp.
 Notes: (3) Schedl 1934g: 177 and Samuelson 1981: 77 (described male).
 References: (ds) Beeson 1938b: 392; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 303; Swezey

1941: 122. (tx) Hagedorn 1910a: 154; Perkins 1900: 174; Samuelson 1981: 63, 77; Schedl 1934g: 177, 1941f: 116.

kersianus Browne 1981a: 132. Holotype ♀; Kuala Kersi (New Britain) to Gamagori (Japan), imported.

Distribution: Fiji Islands, New Britain Island.

References: (ds) Browne 1983b: 77. (tx) Browne 1981a: 132.

khinganensis Murayama 1943b: 100. Holotype ♀; Yakeshi, Ouest de Gr. Khingan [Manchuria]; Murayama Collection in USNM, Washington.

Distribution: Asia ("Manchuria" in China).

Hosts: *Pinus sylvestris*.

References: (tx) Murayama 1943b: 100.

kojimai Murayama 1936a: 143. Holotype ♀; d'Uchinoura, Kinshu; Murayama Collection in USNM, Washington.

Distribution: Asia (Kinshu in Japan).

Hosts: *Quercus stenophylla*.

References: (ds) Murayama 1936a: 134, 1949c: 103, 1954b: 203; Nobuchi 1985c: 25. (tx) Murayama 1936a: 134, 143–144, 1954b: 203.

kraunhiaie Niisima 1910a: 14. Holotype ♀; Kumanotaira, Japan; Nobuchi Collection, Ibaraki.

Distribution: Asia (Japan).

Hosts: *Westalia floribunda*.

References: (ds) Kleine 1934a: 174; Nobuchi 1985c: 25. (tx) Murayama 1954: 179; Niisima 1910a: 14; Schedl 1934f: 1646.

kumamotoensis Murayama 1934c: 288. Holotype ♀; Jisso, Kagoshima Pref., Kinshu, Japan; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan).

Hosts: *Cinnamomum camphora*, *Machilus* spp., *Quercus* sp., *Tricalysis viridiflora*.

References: (ds) Murayama 1949c: 103, 1954b: 179; Nobuchi 1985c: 25. (tx) Murayama 1934c: 288–289, 295, 1954b: 179.

laciniatus Hagedorn 1910b: 7. Holotype ♀; Sumatra; Hagedorn Collection in Hamburg Museum, lost?, now in NHMW, Wien.

Distribution: Indonesia (Sumatra).

Notes: (1) The holotype apparently was on loan to Eggers when it came into the possession of Schedl (see Introduction).

References: (ds) Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 286. (tx) Eggers 1923a: 208–209; Hagedorn 1910a: 155, 1910b: 7; Schedl 1979c: 135.

lacunatus Wood 1974a: 37. Holotype ♀; Turrialba, Cartago, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Theobroma cacao*.

References: (ds) Wood, S. L. 1982b: 814. (tx) Wood, S. L. 1974a: 37, 1982b: 814.

laetus Niisima 1909: 159. Lectotype ♀; Sapporo (Yoshikawa); Nobuchi Collection, Ibaraki, designated by Nobuchi 1981d: 151.

Figures: Nobuchi 1981d: 151–153.

Distribution: Asia (Japan).

Hosts: *Castanea crenata*, *Prunus apetalata*, *Quercus mongolica*.

References: (ds) Kleine 1913b: 161, 1914b: 261; Nobuchi 1985c: 25. (tx) Eggers 1923a: 177; Hagedorn 1910a: 155; Niisima 1909: 158–159; Nobuchi 1981a: 151–153; Schedl 1934g: 1646.

lanaiensis Perkins 1900: 176. Lectotype ♀; Lanai, 2000 ft.; BMNH, London, designated by Samuelson 1981: 78.

Figures: Samuelson 1981: 63.

Distribution: Hawaiian Islands (Lanai).

Hosts: *Planchonella sandwicense*, *Sapindus oahuensis*.

References: (ds) Beeson 1938b: 293; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 303; Samuelson 1981: 78; Schedl 1975b: 353; Swezey 1941: 122, 1954: 173. (tx) Hagedorn 1910a: 155; Perkins 1900: 176; Samuelson 1981: 63, 78; Schedl 1941f: 115, 1979c: 136.

latecarinatus Schedl 1936d: 10. Syntypes ♀; Malay Peninsula, Selangor: Semangkok For. Res.; BMNH, London and Schedl Collection in NHMW, Wien.

Distribution: Asia (Malaya).

Hosts: *Shorea scutellata*.

References: (hb) Browne 1941. (ds) Beeson 1961: 306; Browne 1961c: 137. (tx) Schedl 1936d: 10–11, 1942d: 31, 1958k: 145.

latecornis Schedl 1969a: 212. Holotype ♀; Philippine Is., Abulug to Tokyo (Japan), imported; PPST, Tokyo.

Figures: Nobuchi 1978a: pl. 2.

Distribution: Philippine Islands.

Hosts: *Lanug*.

References: (ds) Browne 1980d: 492; Nobuchi 1978a: 21; Ohno, Yoneyama, & Nakazawa 1987: 94. (tx) Nobuchi 1978a: pl. 2, 1983: 303; Schedl 1969a: 212–213, 1979c: 136.

latipennis Schedl 1976a: 75. Holotype ♀; V. Vera, M. Grosso, Lon. 55 degrees 35 minutes, Lat. 12 degrees 46 minutes [Brazil]; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1976a: 75.

lativentris Schedl 1942a: 191. Holotype ♀; Malaya, Pahang, Cameron's Hill; BMNH, London.

Distribution: Asia (Malaya).

References: (hb) Browne 1961c: 164. (tx) Schedl 1942a: 191, 1942c: 187.

latus Eggers 1923a: 177. Syntypes 2 ♀; Sarawak auf Borneo und Ajer Mantieor auf Sumatra; MCG, Genova and Eggers Collection (USNM, Washington, or NHMW, Wien?).

- Figures: Nunberg 1978: 114.
 Distribution: Asia (Malaya), Indonesia (Borneo, Sumatra).
 Hosts: *Castanopsis sumatrana*, *Iutsia palembanica*, *Parinari griffithianum*, *Pasania sundaica*, *Shorea balanocarpoides*, *S. leprosula*, *S. sp.*
 References: (**hb**) Browne 1961c: 105. (**ds**) Browne 1961c: 105. (**tx**) Eggers 1923a: 177; Nunberg 1978: 113, 114; Schedl 1950g: 895.
- lepidus** Bright 1972d: 74. Holotype ♀; Irish Town, St. Andrew Parish, Jamaica; CNCI, Ottawa.
 Figures: Bright 1972d: 95.
 Distribution: Antilles Islands (Jamaica).
 References: (**ds**) Bright 1955c: 174. (**tx**) Bright 1972d: 74, 95, 1985c: 174; McNamara 1977: 200.
- leverensis** Browne 1986c: 667. Holotype ♀; Solomon Islands: Lever Harbor to Nagoya (Japan), imported; BMNH, London.
 Distribution: Solomon Islands.
 Hosts: *Terminalia* sp. log.
 References: (**tx**) Browne 1986c: 667.
- lignographus** Schedl 1953e: 28. Lectotype ♀; Fukien, Kuatun, China; Schedl Collection in NIIMW, Wien, designated by Schedl 1979c: 138.
 Distribution: Asia (Fujian in China).
 References: (**tx**) Schedl 1953e: 28, 1958j: 241, 1979c: 138.
- lineatus** Eggers 1930d: 177. Holotype ♀; Bengal (Senchal Range, 6500 feet, Darjeeling); FRI, Dehra Dun.
 Distribution: Asia (Bengal, Uttar Pradesh in India).
 Hosts: *Ahnus hepaleensis*, *Madrilus edulis*, *Symplocos theaeifolia*.
 Notes: (3) This may belong to *Cyclorhipidion*.
 References: (**bv**) Naumann-Etienne 1978a. (**cn**) Halperin 1976a; Marcu 1930: 327–336; Mathur & Singh 1961a: 84; Roonwal 1954: 59; Zwolfer 1962, 1963. (**ec**) Krieg 1961: 185; Naumann-Etienne 1978a; Schimitschek 1967. (**hb**) Naumann-Etienne 1978a. (**ds**) Beeson 1930, 1961: 307; Halperin 1976a; Kleine 1934a: 174; Mathur & Singh 1961a: 84; Roonwal 1954: 59. (**tx**) Beeson 1930: 245; Eggers 1930d: 177–178; Schedl 1979c: 139.
- melancranis** Beeson 1930: 218. Holotype ♀; Bengal: Lopchu, 5000 feet, Senchal Range, Darjeeling; FRI, Dehra Dun. Synonymy: Wood 1992:(in press).
 References: (**ds**) Beeson 1930: 216, 218, 245, 1961: 307; Wood, S. L. 1992:(in press).
- littoralis** Perkins 1900: 179. Holotype ♀; Molokai, at sea level; BMNH, London.
 Distribution: Hawaiian Islands (Molokai).
 References: (**ds**) Beeson 1935b: 293; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 302; Samuelson 1981: 78. (**tx**) Hagedorn 1910a: 155; Perkins 1900: 179; Samuelson 1981: 78.
- longicollis** Browne 1977c: 61. Holotype ♀; Samoa: Upolu, 700 feet; BMNH, London.
 Distribution: Samoan Islands.
 Hosts: *Planchonella samoensis*.
 References: (**ds**) Beaver 1976b: 540. (**tx**) Browne 1977c: 61.
- longidens** Eggers 1930d: 181. Holotype ♀; Assam (Shillong); FRI, Dehra Dun.
 Distribution: Asia (Assam in India).
 References: (**tx**) Eggers 1930d: 181–182; Schedl 1979c: 140.
- longipennis** Eggers 1933b: 25. Holotype ♀; Franz. Guayana: Riviere Lumier (Tumuc Humac); MNHN, Paris.
 Distribution: South America (Cayenne).
 Notes: (3) Eggers 1933b: 24 (in key).
 References: (**tx**) Eggers 1933b: 2, 24–26; Schedl 1934f: 1646.
- longipilus** Eggers 1926b: 146. Lectotype ♀; Kumanotaira bei Karuisawa; USNM, Washington, designated by Anderson & Anderson 1971: 18.
 Distribution: Asia (Japan).
 References: (**ds**) Murayama 1952a: 17, 1954b: 180; Nobuchi 1985c: 25. (**tx**) Anderson, W. H. & Anderson 1971: 18; Eggers 1926b: 146–147; Murayama 1950: 64, 1952a: 17, 1954b: 180; Schedl 1934f: 1646, 1941d: 404.
- lubricus** Schedl 1941d: 404. Holotype ♀; Congo; Schedl Collection in NHMW, Wien.
 Distribution: Africa (Zaire).
 References: (**tx**) Schedl 1941d: 404, 1962j: 331, 1979c: 142.
- luteus** Schedl 1937b: 403. Lectotype ♀; Belgisch-Kongo, Faradje, Male, Likimi Bayange, Aba; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 143.
 Distribution: Africa (South Africa/ Zaire), Madagascar.
 References: (**ds**) Schedl 1962j: 305, 1977b: 166. (**tx**) Schedl 1937b: 403–404, 1942c: 187, 1962j: 305, 1977b: 166, 1979c: 143.
- macer** Blandford 1898b: 218. Lectotype ♀; El Tumbador, Guatemala; BMNH, London, designated by Wood 1982b: 841.
 Distribution: Antilles Islands (Puerto Rico), North America (Costa Rica/ El Salvador/ Guatemala/ Veracruz in Mexico/ Nicaragua/ Panama), South America (Colombia/ Venezuela).
 Hosts: *Theobroma cacao*, *Trochis racemosa*.
 References: (**hb**) Wood, S. L. 1982b: 841. (**ds**) Atkinson & Equihua 1988: 102; Blackwelder 1947: 780; Bright 1972a: 1385, 1981c: 157, 1985c: 157; Estrada & Atkinson 1988: 207; Ferrer 1942; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 372; Nunberg 1963c: 98; Schedl 1960a: 76, 1977e: 43; Wood, S. L. 1982b: 841. (**tx**) Blandford 1898b: 218; Bright 1985c: 174; Hagedorn 1910a:

- 155; Schedl 1940a: 361, 1948d: 38, 1960a: 76; Wood, S. L. 1982b: 841.
- machili Niisima** 1910a: 14. Syntypes ♀; Tokio; Nobuchi Collection, Ibaraki.
Distribution: Asia (Japan).
Hosts: *Machilus japonica*.
References: (ds) Kleine 1934a: 174; Murayama 1954b: 204; Nobuchi 1985c: 25–26. (tx) Murayama 1954b: 204; Niisima 1910a: 14; Schedl 1934f: 1646.
- macropterus Schedl** 1935f: 271. Lectotype ♀; Malay Peninsula: Sungar-Lyang; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 143.
Figures: Nobuchi 1978a: pl. 3.
Distribution: Asia (Malaya), Indonesia (Borneo), Philippine Islands (Luzon).
Hosts: *Balanocarpus heimii*, *Shorea aericea*, *S. macroptera*, *S. ovalis*, *Vatica* sp.
References: (ds) Browne 1961a: 305, 1961c: 105, 1962c: 201, 1980c: 483, 1981b: 598; Nobuchi 1978a: 29; Olmo, Yoneyama, & Nakazawa 1982b: 8; Schedl 1966b: 59, 1966g: 32, 1975a. (tx) Nobuchi 1978a: pl. 3; Schedl 1935f: 270–271, 1951i: 92–93, 1975a: 458, 1979c: 143.
- madagascariensis Schaufuss** 1891: 23. Holotype ♀; Madagascar; Hamburg Museum, lost.
Distribution: Madagascar, Seychelles Islands.
Hosts: *Dalbergia* sp., *Elaeocarpus* sp., *Eucalyptus robusta*, *Gouania glandulosa*, *Pinus khasia*, *Racensara* sp.
References: (hb) Schedl 1977b: 160. (ds) Allnau 1900: 439; Anonymous 1892: 164; Fairmaire 1892b; Frappa 1933: 179; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 327; Sampson 1914: 384, 386; Schedl 1969d: 12, 1970d: 234, 1975k: 278, 1977b: 160. (tx) Eggers 1920: 42; Fairmaire 1892b; Hagedorn 1910a: 155, 1913b: 256; Sampson 1914: 384, 386; Schaufuss 1891: 23; Schedl 1950d: 32, 1953d: 71, 100, 1961e: 146, 1969d: 12, 1970d: 234, 1977b: 160, 1979c: 145.
- magnificus Wood** 1992b: 87. Holotype ♀; Junin [presumably Peru]; Wood Collection.
Distribution: South America (Peru).
References: (tx) Wood, S. L. 1992b: 87.
- magnispinus Beaver** in Beaver & Loytyniemi 1985: 75. Holotype ♀; Zambia, Lusaka; BMNH, London.
Distribution: Africa (Zambia).
References: (tx) Beaver & Loytyniemi 1985: 75.
- magnus Niisima** 1910a: 11. Syntypes ♀; Japan; Nobuchi Collection, Ibaraki.
Distribution: Asia (Japan).
Hosts: *Cinnamomum camphora*.
References: (ds) Murayama 1954b: 204, 1955: 102; Nobuchi 1985c: 26. (tx) Murayama 1954b: 204, 1955: 102; Niisima 1910a: 11; Schedl 1934f: 1646.
- maiche (Stark)** 1936: 142 (*Anisandrus*). Syntypes ♀; Ussuri, USSR; IZL, Leningrad.
Figures: Nunberg 1959a: pl. 24, fig. 3–4.
Distribution: Asia (Heilongjiang in China/ E USSR).
Hosts: *Acer* spp., *Alnus* spp., *Betula* spp., *Corylus mandshurica*, *Fraxinus manshurica*, *Phellodendron amurense*, *Ulmus* sp.
References: (ds) Krivolutskaya 1983; Krivolutskaya & Kupyanskaya 1970. (tx) Kurenzov 1941a: 192; Michalski 1969: 570; Nunberg 1959a: 431; Pfeffer 1944a: 131; Schedl 1952k: 158, 1979c: 145; Stark 1936: 142, 1950: 229, 1952: 430. (ms) Pfeffer 1944a: 131.
- maiche Eggers** 1942c: 36. Holotype ♀; Ussuri, USSR; Eggers Collection, apparently in NHMW, Wien. Synonymy: Pfeffer 1944a: 131.
References: (hb) Stark 1952: 430. (ds) Stark 1936e: 142, 1952: 430. (tx) Eggers 1942c: 36; Pfeffer 1944a: 131; Stark 1952: 430; Schedl 1952k: 158; Stark 1950: 229.
- major (Stebbing)** 1909: 19 (*Phloeosinus*). Syntypes 5 ♀; Kachugaon Forest, Goalpara Sal Forests, Assam, India; FRI, Dehra Dun.
Figures: Nunberg 1959a: pl. 24, figs. 5–6.
Distribution: Asia (Burma/ Andaman Islands, Bengal in India/ Malaya).
Hosts: *Dipterocarpus turbinatus*, *Palaquium* sp., *Shorea leprosa*, *S. robusta*.
References: (bv) Beeson 1917: 1–5. (cn) Grandi 1951; Kalshoven 1924c; Mathur & Singh 1961a: 46; Pierce, W. D. 1917: 193; Stebbing 1914: 590. (ec) Beeson 1923; Bhatia 1950; Stebbing 1914: 590. (hb) Beeson 1916a: 221, 1917, 1923; Bhatia 1950; Browne 1961c: 105; Grandi 1951; Kalshoven 1924c; Paulian 1949a: 988; Stebbing 1909b: 19, 1914: 590; Zocchi 1956: 144. (ds) Beeson 1916a, 1923, 1930: 245, 1961: 307; Bhatia 1950; Browne 1961c: 105; Kleine 1914b: 227, 1934a: 174; Mathur & Singh 1961a: 46; Pierce, W. D. 1917: 193. (tx) Beeson 1930: 245; Eggers 1923a: 211, 1927c: 99; Jeannel 1949: 988; Nunberg 1959a: 431; Sampson 1922b: 152; Schedl 1935f: 271, 1942a: 194; Stebbing 1907: 36–37, 1909b: 19, 1914: 590; Zocchi 1956: 141.
- majusculus Schedl** 1951m: 124. Syntypes 3 ♀; Brasilien, Bahia, Cachoeirinha-Una; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
Notes: (1) Schedl 1979c: 146 (citation of holotype invalid).
References: (tx) Schedl 1951m: 124, 1979c: 146.
- malayensis Browne** 1981a: 132. Holotype ♀; Johore Bahru (Malaya) to Nagoya (Japan), imported; BMNH, London.
Distribution: Asia (Malaya).
References: (tx) Browne 1981a: 132.
- malgasicus Schedl** 1961e: 148. Holotype ♀; Madagascar, Perinet; IRSM, Madagascar.

Distribution: Madagascar.

Hosts: *Cinchona succubra*, *Piptadenia perveillei*.

Notes: (1) Originally named as a subspecies of *subtuberculatus*, but rather than elevate this name to specific rank Schedl (1965c: 71) renamed it *similaris*.

References: (tx) Schedl 1961e: 148, 1965c: 71, 1979c: 245.

similaris Schedl 1965c: 71. Holotype ♀; Madagascar, Antaniditra pres Perinet; IRSM, Madagascar, no status [see note 1].

Notes: (1) This name was based on the holotype of *subtuberculatus* subsp. *malgasicus*, a valid species-group name, and as such it is an objective synonym.

References: (tx) Schedl 1961e: 148, 1965c: 71, 1977b: 166.

maniensis Browne 1981a: 130. Holotype ♀; Tanjong Mani (Borneo) to Nagoya (Japan), imported; BMNH, London.

Distribution: Indonesia (Borneo).

References: (tx) Browne 1981a: 130.

marginicollis Schedl 1936h: 64. Holotype ♀; Luzon; Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands (Luzon).

References: (ds) Schedl 1966b: 60. (tx) Nobuchi 1983: 303; Schedl 1936h: 64–65, 1979c: 149.

mascareniformis Eggers 1927b: 400. Holotype ♀; Sumatra (Si Rambe); MCG, Genova.

Distribution: Asia (Malaya), Indonesia (Sumatra).

References: (ds) Browne 1961c: 104. (tx) Eggers 1927b: 400–401; Schedl 1958k: 154; Wood, S. L. 1989: 177.

onerous Schedl 1942a: 185. Holotype ♀; Perak, Larut Hills, 3400 Fuss; BMNH, London. Synonymy: Wood 1989: 177.

References: (tx) Schedl 1942a: 185, 1951i: 64, 1958k: 154; Wood, S. L. 1989: 177.

mauiensis Perkins 1900: 175. Lectotype ♀; Maui, Haleakala (5000 ft.); BMNH, London, designated by Samuelson 1981: 79.

Figures: Samuelson 1981: 63.

Distribution: Hawaiian Islands (Maui, Molokai).

Hosts: *Cheirodendron trigyrum*.

Notes: (3) Samuelson 1981: 79 (described male).

References: (ds) Beeson 1938b: 293; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 303, 1934a: 174; Samuelson 1979: 79; Swezey 1941: 124. (tx) Hagedorn 1910a: 155; Perkins 1900: 175; Samuelson 1981: 63, 79; Schedl 1979c: 150.

meritus Wood 1974a: 40. Holotype ♀; Tapanti, Cartago, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Conostegia oerstediana*, *Miconia* spp., *Myrica pubescens*, *Phoebe mexicana*.

References: (hb) Wood, S. L. 1982b: 823. (ds) Wood, S. L. 1982b: 823. (tx) Wood, S. L. 1974a: 40, 1982b: 823.

mesoleiulus Schedl 1979g: 108. Holotype ♀; Papua, Bulolo, Morobe District, Upper Manki L. A. [New Guinea]; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1979g: 108.

metacuneolus Eggers 1940d: 150. Holotype ♀; Java (Buitenzorg); Kalshoven Collection.

Distribution: Asia (Malaya/ Sri Lanka/ Taiwan), Indonesia (Java).

Hosts: *Buchanania arborescens*, *Mangifera indica*, *M. odorata*, *Swietenia mahagoni*.

References: (cn) Gope & Roy 1986. (hb) Browne 1961c: 123; Kalshoven 1959c: 153. (ds) Browne 1961c: 123; Gope & Roy 1986; Kalshoven 1959c: 153; Nobuchi 1967: 22; Schedl 1959a: 509, 1966b: 61. (tx) Eggers 1940d: 150; Nobuchi 1983: 303; Schedl 1939n: 14, 1951i: 85–86, 1952c: 62, 1959a: 509, 1979c: 152.

meuseli Reitter 1905: 249. Holotype ♀; Ussunsk (Sajan occid.), Ostsibirien; NHMB, Budapest.

Distribution: Asia (E USSR).

References: (hb) Stark 1952: 440. (ds) Hagedorn 1910d: 106; Kleine 1913b: 161; Stark 1952: 440. (tx) Hagedorn 1910a: 155; Niisima 1909: 161; Reitter 1905: 249–250, 1913a: 111; Schedl 1934f: 1646, 1952: 440.

mindanaensis Eggers 1927c: 93. Holotype ♀; Philippinen: Mindanao, Prov. Lanao, Iligan; Eggers Collection (not listed by Anderson & Anderson 1971 or Schedl 1979c).

Distribution: Philippine Islands (Mindanao).

References: (ds) Schedl 1966b: 61. (tx) Eggers 1927c: 93–94; Nobuchi 1983: 303.

minimus Schedl 1955b: 305. Holotype ♀; Philippinen, Luzon: Manila; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Java), New Guinea, Philippine Islands (Luzon).

References: (ds) Schedl 1966b: 62. (tx) Nobuchi 1983: 303; Schedl 1955b: 281, 305, 1979c: 154.

minutus Blandford 1894d: 116. Syntypes 3 ♀; Inasa, Japan; BMNH, London.

Distribution: Asia (Japan/ Korea/ Malaya), Indonesia (Borneo, Java).

Hosts: *Alstonia* sp., *Elaeocarpus* sp., *Hopea ferrea*, *Rhodamnia trinervia*, *Shorea curtisii*, S. sp.

References: (bv) Choo, Woo, & Park 1988. (hb) Beaver & Browne 1978: 610; Browne 1961c: 119–120. (ds) Beaver & Browne 1978: 610; Blandford 1894c; Browne 1962c: 202, 1980a: 373, 1986a: 89, 1986c: 663; Choo 1983: 106; Choo & Woo 1985: 166; Choo, Woo, & Nobuchi 1988a: 134; Choo, Woo, & Park 1988; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 260; Murayama 1954b: 204, 1955: 100; Ohno et al. 1988a: 94. (tx) Blandford 1894d: 116; Browne 1955: 356; Choo 1983: 106; Hagedorn 1910a: 155; Murayama

- 1934: 290, 1954b: 204, 1955: 100; Schedl 1931c: 339–340, 1934g: 1646, 1958k: 147.
- breviusculus* Schedl 1942a: 196. Lectotype ♀; Malaya, Kuala Lumpur; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 47. Synonymy: Schedl 1958k: 147. References: (tx) Schedl 1942a: 195, 1954a: 152, 1958k: 147, 1979c: 47.
- pernitidus* Schedl 1954a: 152. Holotype ♀; Java, Batoerraden; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1958k: 147. References: (tx) Schedl 1954a: 142, 152, 1958k: 147, 1979c: 190.
- misatoensis* Nobuchi 1981b: 146. Holotype ♀; Misato, Wakayama [Japan]; Nobuchi Collection, Ibaraki. Figures: Nobuchi 1981b: 153. Distribution: Asia (Japan). Hosts: *Castanopsis cuspidata*, *Quercus phillyracoides*. References: (tx) Nobuchi 1981b: 146, 153, 1985c: 204.
- miyazakiensis* Murayama 1936a: 144. Holotype ♀; Sarukawa, Japan; Murayama Collection in USNM, Washington. Distribution: Asia (Japan). Hosts: *Quercus acuta*. References: (ds) Murayama 1936a: 135, 144–145, 1951a: 4, 1954b: 204; Nobuchi 1985c: 26. (tx) Murayama 1936a: 135, 1954b: 204.
- molokaiensis* Perkins 1900: 174. Lectotype ♀; Molokai, above 4000 ft.; BMNH, London, designated by Samuelson 1981: 80. Figures: Samuelson 1981: 63. Distribution: Hawaiian Islands (Lanai, Maui, Molokai, Oahu). Hosts: *Cheirodendron trigynum*, *Ilex anomala*. Notes: (3) Samuelson 1981: 80 (described male). References: (ds) Beeson 1938b: 293; Hagedorn 1910d: 107; Kleine 1913b: 161, 1914b: 303, 1934a: 174; Samuelson 1981: 80; Swezey 1941: 124. (tx) Hagedorn 1910a: 155; Perkins 1900: 174; Samuelson 1981: 63, 80.
- moluccanus* Browne 1985b: 292. Holotype ♀; Tg. Bonyosmif (Halmahera, Moluccas) to Nagoya (Japan), imported; BMNH, London. Distribution: Indonesia (Moluccas). Hosts: *Anisoptera* sp. References: (ds) Ohno, Yoneyama, & Nakazawa 1987: 94. (tx) Browne 1985b: 292.
- monographus* (Fabricius) 1792: 365 (*Bostrichus*). Holotype ♀; Germaniae; UZMC, Copenhagen. Figures: Balachowsky 1949a: 222, Grune 1979: 154, Pfeffer 1989a: pl. 8, Postner 1974: 462. Distribution: Africa (Algeria/ Morocco), Asia (Turkey), Europe (Albania/ Austria/ Belgium/ Bulgaria/ Czechoslovakia/ Denmark/ France/ Germany/ Greece/ Hungary/ Italy/ Luxembourg/ Netherlands/ Norway/ Poland/ Romania/ Saradinia/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia). Hosts: *Quercus* spp., uncommon in *Castanea vesca*, *Fagus orientalis*. Notes: (3) Ronbal 1937: 67 (named an aberration as var. *nitidipennis*, no status). References: (ay) Bugnion 1887b; Escherich 1923b: 488; Feytaud 1950a; Fisher 1954; Francke-Grosmann 1957; Lekander 1959d: 92; Marcus 1930: 644; Murayama 1933a: 1; Nunberg 1928a: 140; Schwerdtfeger 1929: 360. (bv) Grune 1979: 155; Meixner 1937: 1216. (cn) Acatay 1943a: 70; Androic 1966: 46; Barbey 1925: 434; Becker 1950; Blandford 1892b; Chorbadzhiyev 1929; Comstock 1881: 274–275; Eckstein 1926: 575; Escherich 1916: 272–273, 1923b: 488; Falck 1911a: 166, 169; Feytaud 1950a; Fleischer 1877a; Gabler 1955; Garman 1905: 69; Georgescu et al. 1957: 357, 427; Goosen 1961; Grandi 1951; Groschke 1952b, 1953b; Herfs 1950: 7; Hess 1900: 37; Hess & Beck 1914: 290, 1927: 346; Hourins 1939: 401–409; Jacquiot 1951a: 2, 1951b: 283–284; Judeich & Nitsche 1895: 546; Kamp 1954: 4; Kholodkovskii 1912: 279, 319; Kleine 1932a: 308; König, E. 1957: 108; Koppen 1882: 260; Maksimovic 1959: 3–13; Marcu 1926c: 64, 1962; Marcus 1930: 609–677; Marie 1922: 306–311; Moote 1867: 75–76; Negru 1966; Nusslin 1913: 205; Pierce, W. D. 1917: 40; Reissig 1949: 131; Rhumbler 1922: 329, 1927: 345; Schedl, W. 1964: 411–428; Schimitschek 1937c: 53, 1938c: 2119, 1939d: 2119, 1944: 180, 1955a: 137, 1955c: 86, 1961a: 154; Schuster 1918: 101; Schwerdtfeger 1929: 360, 1944a: 155, 1957a: 190; Strohmeier 1906b: 330; Wachtl 1901: 381; Weber, H. 1926: 575; Wichmann 1927b: 350, 360, 1957a: 95; Wolff & Krausse 1922: 92; Zehntner 1900: 501; Zvierezomb-Zubovsky 1918: 1–36; Zvolfer 1949: 401. (ec) Apel 1983; Elliot & Morley 1907; Fisher 1954; Fleischer 1877a; Francke-Grosmann 1957; Györfi 1941b, 1943: 84, 1952b; Hartig 1844; Horn 1933: 173; Kleine 1909a: 49, 78, 1944: 73; Kostenko 1929; Michalski & Ratajczak 1989; Neger 1909b: 408, 1911a: 50; Nikitsky 1978; Norris 1979; Nosek 1959a: 118, 1959b: 85; Novak 1952: 417; Nusslin 1927: 345; Perris 1856a: 199; Pfeffer 1928b: 2, 1943b: 182; Rondani 1873: 140; Rühm 1956b: 4; Schedl, W. 1964; Schimitschek 1941: 317, 1955a: 137; Schuster 1918: 101; Schwerdtfeger 1929: 360, 1944a: 185, 1957a: 190; Slaby 1947: 375; Speyer 1937: 30; Uchastnova 1985; Vite 1952a: 105; Wichmann 1955a: 45; Woodring 1966c: 133. (hb) Acatay 1943a: 70; Altum 1881c: 316; Anonymous 1920: 124; Apel 1983; Baeta Neves 1943a; Barbey 1901: 10, 28, 108, 1913, 1925: 434; Bargmann 1906; Becker 1950; Blandford 1892b; Bugnion 1887b; Cecconi 1905, 1924; Chorbadzhiyev 1929; Dombrowsky 1887; Duprez 1944; Dyakowski 1911; Eckstein 1889, 1926: 575, 1928; Eggers 1908d; Eichhoff 1881a: 54, 286; Escherich 1923b: 488;

- Everts 1902; Falck 1916: 166, 169; Feytaud 1950a; Fisher 1954; Fleischer 1877a; Fuchs 1904a; Furst 1888: 109, 113; Gabler 1955; Grandi 1951; Groschke 1952b, 1953b; Gyorfi 1936: 525, 528, 1957; Henschel 1876a: 216, 240, 1882b, 1895a: 192; Hergula 1939: 303; Hess 1900: 37; Hess & Beck 1914: 290, 1927: 346; Jacquot 1951a: 2; Judeich & Nitsche 1895: 546; Karpinski & Strawinski 1948: 156; Karsch 1883: 142; Kholodkovskii 1912: 279, 319; Kleine 1932a: 308; Kleinert 1980: 75; Knotek 1894a: 559, 1896: 150; Konig, E. 1957: 108; Lengerken 1954: 318; Lepiney 1829: 313–321; Lepiney & Mimeur 1932: 45; Liese 1950: 142; Louzil 1961: 23; Lunardoni & Leonardi 1889: 485; Mjoberg 1906: 137; Nosek 1959a: 118, 1959b: 85; Nusslin 1898: 283, 1913: 205, 1927: 345; Palm 1953a: 23, 1954a: 185; Perris 1856a: 199; Peyerimhoff 1919: 257; Pfeffer 1942a: 3; Postner 1974: 466; Ratzeburg 1837: 130, 168, 1839: 157, 203; Rhumbler 1922: 329, 1927: 345; Rupertsberger 1880: 232; Schedl, W. 1964; Schimitschek 1944: 180, 1955a: 137; Schwerdtfeger 1944a: 185, 1957a: 190, 1981: 196; Spessivtsev 1913a: 101; Speyer 1937: 30; Stark 1926a: 330, 336, 1952: 434; Strohmeier 1906b: 330, 1907a: 65, 1910b: 89; Tschorbadjiev 1929: 169; Vite 1952a: 105; Wachtl 1876a: 456, 1901: 381; Weber, H. 1926: 575; Wichmann 1927b: 350, 360; Wissman 1846: 25; Wolff & Krausse 1922: 92; Zehntner 1900: 501. (ds) Acatay 1943: 70; Acloque 1896; Andersch 1851; Androic 1966: 46; Audras & Schaefer 1957; Barthe 1896; Bau 1888; Bedel 1888b: 403, 419; Bejer-Petersen & Jorum 1977: 25; Bielz 1851, 1887; Blanchere & Robert 1889; Borchert 1951; Brakman 1966b: 206; Brancsik 1871, 1906; Browne 1980d: 493; Bucking 1932; Buresh & Lazarov 1956; Calwer 1884; Cecconi 1897, 1905; Choo 1983: 107; Choo & Woo 1985: 166; Chorbadzhievo 1924d, 1929; Csiki 1942c; Dejean 1821, 1825, 1837; Duprez 1938a; Eckstein 1923; Eggers 1904, 1912f; Endrodi 1958a, 1958b, 1981: 185, 1986: 217; Ericson & Sandin 1893; Escalera 1919; Escherich 1923b: 488, 1932b; Eyquem 1891; Favre 1890; Fedorov 1930; Fricken 1889: 354; Fuchs 1904a, 1905a; Gaubil 1849: 126; Gemminger & Harold 1872: 2686; Cozys 1875: 80; Grill 1895: 312; Grune 1979: 155; Gyllenhal 1827: 623; Gyorfi 1936: 525, 529, 1941b; Hagedorn 1910d: 107; Hansen, V. 1939, 1956, 1964: 463; Heinemann 1908a; Hellen 1947; Hennig 1954: 265; Henschel 1895a: 192; Heyden 1876: 300; Heyden, Reitter, & Weisc 1883: 182, 1891: 674, 1901: 713; Hoffmann 1936; Holdhaus 1912: 454; Horion 1951; Illiger 1805: 129; Jansson 1915: 93; Jazentkovsky 1912: 292; Judeich & Nitsche 1895: 546; Kaltenbach 1874: 646; Karpinski 1932b: 54; Karpinski & Strawinski 1948: 156; Keler 1925b: 275; Kersten 1933: 75; Kestercanek 1881a: 12; Klefbeck & Sjoberg 1960: 232; Kleine 1912a: 262, 268, 1913a: 36, 1913b: 162, 1914a: 16, 1932a: 308, 1934a: 174; Knotek 1892a: 38, 1894a: 559; Koca 1905: 192; Kocher 1953: 133; Koppen 1882: 260; Kostenko 1929; Kraatz 1869: 60; Kurir 1947c: 31; Lacordaire 1866: 381; Langhoffer 1915c: 158, 1929: 1196–1203; Leclercq 1971; Lentz 1857: 140; Lepiney & Mimeur 1932: 45; Liese 1950: 142; Lokaj 1868: 64; Lomnicki 1886a: 243, 1913b: 148; Lucht 1987: 279; Lunardoni & Leonardi 1889: 485; Marcu 1926c: 64; Mjoberg 1903: 110; Munro 1921: 87; Murayama 1937b: 375, 1954b: 204; Murray 1853: 60; Negru 1965: 155, 1966b, 1968a: 456, 1968c: 91; Normand 1937: 269; Novak, P. 1952: 417, 1964; Nunberg 1928b: 88, 110, 1954: 62, 1960b: 156; Nusslin 1898: 283; Oliveira 1887: 329; Orest 1926c: 64; Ortzen 1886: 280; Paganetti-Hummel 1901: 150; Palm 1953b: 60, 1959: 27, 354; Perris 1876a: 255, 1877a: 415; Peyerimhoff 1919: 257; Pfeffer 1928b: 2, 1931b: 73, 1989a: 87; Pierce, W. D. 1917: 40; Pittioni 1943: 176; Postner 1974: 466; Prossen 1913: 84; Ragusa 1924: 117; Rapp 1934: 736; Ratzeburg 1837: 130, 168, 1839: 157, 203; Redtenbacher 1858: 835, 1874: 381; Reissig 1949: 131; Reitter 1869b: 155, 1894a: 90, 1916: 294; Romanyk 1959: 425; Roubal 1941: 275; Sainte-Claire 1914: 475; Sainte-Claire & Mequignon 1938: 449; Schaufuss 1915: 1238; Schaum 1859: 96, 1862: 101; Schedl 1961b: 185, 1964a, 1967c: 73, 1971b: 530, 1971d: 427, 1971f: 149, 1972n: 352, 1980a: 20, 1981b: 94; Schilsky 1909: 189; Schiodte 1873: 104; Schwerdtfeger 1981: 196; Seidlitz 1872: 396, 1891a: 568, 1891b: 613; Stark 1926a: 330, 336, 1926g: 154, 1927b: 89, 1952: 434; Stein 1868: 114; Stein & Weise 1877: 165; Stephens 1829a: 145, 1830: 358, 1839: 207; Stierlin 1898: 447; Stierlin & Gautard 1871: 293, 1906: 206; Sturm 1826: 102, 1843: 230; Thomson 1865: 370, 1868: 223; Tredl 1907: 18; Tressens 1952: 90; Tschorbadjiev 1929: 169; Villa & Villa 1833: 26; Vite 1953: 42; Wachtl 1876a: 456; Westhoff 1882: 240; Wichmann 1927a: 70, 1955a: 95, 1957a: 95. (tx) Acloque 1896; Altman 1844; Apel 1983; Aube 1959; Bach 1854; Balachowsky 1949a: 222–225; Barbey 1901: 10, 28, 108; Bedel 1888b: 403, 419; Beeson 1929: 247–248, 1938: 295; Beffa 1949; Bertolini 1872; Blandford 1892b; Brancsik 1871; Buysson 1880; Calwer 1858; Ceballos 1945; Choo 1983: 107; Chorbadzhievo 1924d; Dejean 1821, 1825; Dombrowsky 1887; Eggers 1912f: 29, 1920: 117, 1923a: 195, 1924, 1929e: 42, 1941a: 104, 1941b: 225; Eichhoff 1864b: 38, 1868a: 400, 1878b: 397, 1881a: 54, 286, 1883a: 116, 142; Endrodi 1957b; Escherich 1923b: 488; Escherich & Escherich 1897; Fabricius 1792: 365, 1801: 387; Fawel 1889; Ferrant 1911; Ferrari 1867a: 20, 24, 1867b: 114; Fleischer 1927; Formanek 1907: 53; Fricken 1889: 354; Gabler 1955; Grune 1979: 154–155; Gyllenhal 1813: 356, 1827: 623; Hagedorn 1910a: 155; Hansen, V. 1956, 1964: 463; Henry 1892: 12; Henschel 1876a: 216, 240, 1895a: 192; Herbst 1793: 118; Hoff-

- mann 1936: 44, 1942: 72–73; Hopkins 1914: 131, 1915b: 60; Houlbert 1922a: 13, pl. 1; Iablokoff-Khnzorian 1961: 89; ICZN 1968: 18; Jacquelin du Val & Fairmaire 1868: 107, 109; Judeich & Nitsche 1895: 546; Kalina 1975, 1977: 49; Karpinski & Strawinski 1948: 156; Knotek 1892a: 38; Kuhnt 1913: 1060; Lacordaire 1866: 381; Letzner 1891: 378; Lemnis 1886: 181; Lovendal 1889b: 75, 1898: 191; Lucht 1987: 279; Lunardoni & Leonardi 1889: 485; Meixner 1937: 1216; Murayama 1930: 38, 1933a: 1, 1937b: 375, 1954b: 204; Negru 1966b; Nunberg 1928a: 140, 1954: 62; Panzer 1795a: 285; Paykull 1800: 149; Perris 1877a: 415; Pfeffer 1932b: 21, 1942a: 3, 1955a: 197, 1989a: pl. 8; Portevin 1935: 330; Postner 1974: 466; Quaschik 1953: 35; Ratzeburg 1837: 130, 168, 1839: 157, 203; Redtenbacher 1849a: 358, 1849b: 26, 1858: 835, 1874: 381; Reitter 1894a: 90, 1913a: 82, 1916: 294; Rey 1892b: 30; Rumbler 1922: 329, 1927: 345; Roubal 1937: 67–68; Rupertsberger 1880: 232; Schedl 1934f: 1646, 1942a: 198, 1952f: 88, 1952i: 16, 1957d: 82, 1980a: 20, 1981b: 94; Schimitschek 1937c: 53–54, 1955c: 86; Seidlitz 1872: 396, 1891a: 568, 1891b: 613; Spessivtsev 1913a: 101–102, 1922a: 478, 491, 1925a: 180, 1931: 57–59; Stark 1952: 434; Stephens 1829a: 145, 1829b: 12, 1830: 358, 1839: 207; Stierlin 1898: 447; Stresemann et al. 1989: 353; Strohmeier 1912b: 57; Thomson 1865: 370, 1868: 223; Wissmann 1846: 26; Zimmermann 1868: 145. (ms) Escherich 1932b; Heinemann 1908a; Schwappach 1924: 57.
- tuberculosis* Herbst 1793: 113 (*Bostrichus*). Synonyms, sex?; Deutschland; not located. Synonymy: Eichhoff 1878b: 397.
References: (ds) Illiger 1805: 129; Stein & Weise 1877: 165; Stephens 1829a: 145; Villa & Villa 1833: 28. (tx) Eichhoff 1878b: 397; Herbst 1793: 113; Stephens 1829a: 145.
- montanus** Niisima 1910a: 13. Holotype ♀; Kumantaira bei Karuisawa, Japan; Nobuchi Collection, Ibaraki.
Distribution: Asia (Japan).
Hosts: *Malus sieboldii*.
References: (ds) Kleine 1934a: 174; Murayama 1954b: 180; Nobuchi 1985c: 26. (tx) Murayama 1954b: 180; Niisima 1910a: 13; Schedl 1934f: 1646, 1960h: 106, 1979c: 159.
- morulus** Blandford 1898b: 212. Holotype ♀; Costa Rica; BMNH, London.
Distribution: North America (Costa Rica/ Guatemala/ Michoacan in Mexico).
Hosts: *Bursera* sp., *Erythrina costaricensis*, *Spondias mombin*.
Notes: (3) Schedl 1951m: 73 incorrectly treated this as a synonym of *volvulus*. A report of this species from Paraguay is probably based on a misidentification (SLAV).
References: (ds) Atkinson & Equihua 1985b: 238; Blackwelder 1947: 780; Hagedorn 1910d: 107; Kleine 1913b: 162, 1914b: 272; Schedl 1966f: 77, 1970e: 89; Wood, S. L. 1982b: 835. (tx) Blandford 1898b: 212; Hagedorn 1910a: 155; Schedl 1940a: 363, 1940c: 208, 1951m: 73; Nunberg 1959a: 443; Wood, S. L. 1982b: 835.
- mpangae** Browne 1965a: 202. Holotype ♀; Uganda; Mpanga; BMNH, London.
Distribution: Africa (Uganda).
References: (tx) Browne 1965a: 202–203.
- muasi** Browne 1961a: 306. Holotype ♀; Sarawak; Bako National Park; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Vatica* sp.
References: (tx) Browne 1961a: 306.
- mucronatoides** Schedl 1975f: 368. Holotype ♀; New Guinea SW, Vogelkop, Fak Fak, S. Coast of Bomberai; BPBM, Honolulu.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 368.
- mucronatulus** Eggers 1930d: 199. Holotype ♀; Phandowala, India; FRI, Dehra Dun.
Distribution: Asia (Bengal in India).
Hosts: *Mesua ferrea*, *Shorea robusta*.
References: (ds) Beeson 1930: 250, 1961: 308; Kleine 1934a: 174. (tx) Beeson 1930: 250; Eggers 1930d: 199.
- mucronatus** Eggers 1923a: 191. Holotype ♀; Java; Hamburg Museum, lost.
Distribution: Asia (Malaya/ Thailand), Indonesia (Borneo, Java).
Hosts: *Altingia excelsa*, *Bixa orellana*, *Cinchona* sp., *Coffea* sp., *Dyera costulata*.
References: (hb) Beaver & Browne 1975: 299; Browne 1961c: 115; Kalshoven 1958a: 189, 1959c: 150. (ds) Beaver & Browne 1975: 299; Kalshoven 1958a: 189, 1959c: 150; Nobuchi 1978a: 406; Schedl 1964g: 242, 1966b: 62, 1971c: 370. (tx) Eggers 1923a: 191–192, 1930d: 199; Nobuchi 1983: 303; Schedl 1942d: 5, 1952c: 64, 1958b: 101.
- multipunctatus** Browne 1980b: 386. Holotype ♀; Tatau (Borneo) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Borneo).
References: (tx) Browne 1980b: 386.
- multipunctulus** Browne 1984d: 98. Holotype ♀; New Guinea; Gumi; BMNH, London.
Distribution: New Guinea.
Hosts: *Agathis alba*.
References: (tx) Browne 1984d: 98.
- multispinatus** Eggers 1920: 125. Lectotype ♀; Africae Kamerun; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 161.
Figures: Nunberg 1963b: pl. 1, figs. 1–6 (female), Schedl 1962j: 313–315.
Distribution: Africa (Angola/ Cameroon/ Ghana/ Ivory Coast/ Tanzania/ Uganda/ Zaire).
Hosts: *Acanthus pubescens*, *Albizia gummifera*,

Baikiaca eminii, *Canarium* sp., *Chrysophyllum pruniforme*, *Dialium pachyphyllum*, *Drypetes leonensis*, *D. yambataense*, *Ficus* sp., *Maba laurentii*, *Macrolobium* sp., *Milletia* sp., *Occhio-cosmus africanus*, *Pentaclethra macrophylla*, *Synsepalum subcordatum*, *Theobroma cacao*, *Trema guineensis*.

References: (ds) Schedl 1959p: 18. (tx) Eggers 1920: 125–126, 1924: 108; Schedl 1962j: 317–318, 1979c: 161.

acanthus Schedl 1952i: 15. Holotype ♀; Congo Belge: Kivu, Mulungu; MRCB, Tervuren. Synonymy: Wood 1989: 177.

References: (ec) Schedl 1962j: 312. (hb) Beaver & Loytyniemi 1985a: 72; Browne 1963a: 238; Loytyniemi, Beaver, & Loytyniemi 1984; Schedl 1962j: 312. (ds) Beaver & Loytyniemi 1985a: 72; Browne 1963a: 238; Mayne & Donis 1960: 104, 1962: 314; Nunberg 1961a: 329; Schedl 1961j: 349, 1962h: 59, 1962j: 312, 1962k: 1097, 1964e: 68, 1964f: 618, 1967e: 215. (tx) Nunberg 1963b: 7, pl. 1; Schedl 1952i: 15, 1954e: 80, 1957d: 84, 97, 1962j: 312–314, 1962k: 1096, 1979c: 10; Wood, S. L. 1989: 177.

acanthus acanthodes Schedl 1954e: 80. Lectotype ♀; Bekwai; Schedl Collection in NHMW, Wien.

References: (ds) Schedl 1962j: 59, 1962j: 316, 1962k: 1097; Thompson, G. H. 1963: 70. (tx) Schedl 1954e: 80, 1962j: 316, 1962k: 1097, 1979c: 10.

acanthus acuticornis Schedl 1957d: 97. Holotype ♀; Congo Belge, Yangambi; Schedl Collection in NHMW, Wien.

References: (ay) Schedl 1962j: 316. (ec) Schedl 1962j: 316. (ds) Ferreira 1965: 1120; Schedl 1959p: 18–19, 1962h: 59, 1962j: 316, 1962k: 1097. (tx) Nunberg 1963b: 8; Schedl 1957d: 97, 1962j: 316, 1979c: 10.

acanthus mimus Schedl 1971e: 13. Holotype ♀; Congo, Yangambi; Schedl Collection in NHMW, Wien.

References: (tx) Schedl 1971e: 13.

mumfordi Beeson 1935b: 110. Syntypes ♀; Hivaoa: Mt. Temetiu, NE slope, 3620 ft; BPBM, Honolulu.

Distribution: Marquesas Islands.

Hosts: *Cyrtanda* sp., *Reynoldsia tahitensis*.

References: (ds) Beeson 1938b: 293. (tx) Beeson 1935b: 110; McNamara 1984: 759; Schedl 1950f: 53, 1979c: 161.

murudensis Browne 1965a: 203. Holotype ♀;

Sarawak: Foot of Mt. Murud; BMNH, London.

Distribution: Indonesia (Sarawak in Borneo).

References: (tx) Browne 1965a: 203.

mussooriensis Eggers 1930d: 179. Syntypes ♂ ♀; United Provinces, Mussoorie, 6000 feet; FRI, Dehra Dun.

Distribution: Asia (Uttar Pradesh in India).

Hosts: *Berberis nepalensis*.

References: (ds) Beeson 1930: 74, 250, 1961: 308; Kleine 1934a: 174. (tx) Beeson 1930: 250; Eggers 1930d: 179–180; Schedl 1979c: 162.

mustus Schedl 1972b: 269. Holotype ♀; Samoa, Upolu; Schedl Collection in NHMW, Wien.

Distribution: Samoan Islands.

References: (tx) Schedl 1972b: 269, 1979c: 162.

mutabilis Schedl 1935d: 92. Holotype ♀; Venezuela; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil/ Venezuela).

References: (ds) Blackwelder 1947: 780. (tx) Schedl 1935d: 92, 1936j: 109, 1961a: 530, 1979c: 162; Wood, S. L. 1978b: 398.

itaiayaensis Schedl 1936j: 109. Lectotype ♀; Serra Itaiaya, Sudabhang, Waldregion; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 128. Synonymy: Wood 1989: 177.

References: (ds) Blackwelder 1947: 780. (tx) Schedl 1935d: 93, 1936j: 109, 1979c: 128.

meridensis Wood 1974a: 38. Holotype ♀; La Carbonera Experimental Forest, near Merida, Merida, Venezuela; Wood Collection. Synonymy: Wood 1978b: 398.

References: (tx) Wood, S. L. 1974a: 38, 1978b: 398.

muticus Blandford 1894d: 112. Syntypes ♀; Kashiwagi, Japan; BMNH, London.

Distribution: Asia (Japan).

Hosts: *Pinus maximowiczii*.

References: (ds) Blandford 1894c: 579; Hagedorn 1910d: 107; Kleine 1913b: 162, 1914b: 260; Murayama 1952a: 20, 23, 1954b: 180; Nobuchi 1985c: 26. (tx) Blandford 1894d: 112; Hagedorn 1910a: 155; Murayama 1952a: 20, 23, 1954b: 180; Niisima 1910: 14; Schedl 1934f: 1646.

myllus Browne 1986a: 92. Holotype ♀; Kuala Langsa (Sumatra) to Nagoya (Japan), imported; BMNH, London.

Distribution: Indonesia (Sumatra).

Hosts: *Dipterocarpus* sp. log.

References: (tx) Browne 1986a: 92.

nagaoensis Murayama 1934c: 294. Holotype ♂; Tarumidzu, Kagoshima pref., Kiushu, Japan; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan).

Hosts: *Passania cuspidata*.

References: (ds) Murayama 1949c: 103, 1954b: 204; Nobuchi 1985c: 26. (tx) Murayama 1934c: 294–295, 1954b: 204.

nakazawai Browne 1984a: 156. Holotype ♀; Pomio (New Britain) to Nagoya (Japan), imported; BMNH, London.

Distribution: New Britain Island.

Hosts: Watergum log.

References: (ds) Ohno et al. 1989: 63. (tx) Browne 1984a: 156.

- nameranus** Murayama 1954b: 194. Holotype ♀; Mt. Namera, Yamaguchi pref.; Murayama Collection in USNM, Washington.
Distribution: Asia (Japan).
Hosts: *Quercus acuta*, *Q. myrsinaefolia*.
References: (cn) Murayama 1954a: 25. (ds) Murayama 1954a: 25, 1954b: 194; Nobuchi 1985c: 26. (tx) Murayama 1954b: 194.
- neivai** Eggers 1928c: 96. Lectotype ♀; Brasil, Sao Paulo (Hauptstadt); USNM, Washington, designated by Anderson & Anderson 1971: 21.
Figures: Nunberg 1959a: pl. 24, figs. 7–8, Pedrosa-Macedo & Schonherr 1985: 33.
Distribution: South America (Brazil).
Hosts: *Citrus* sp.
Notes: (1) Schedl 1979c: 164 (designation of holotype invalid).
References: (cn) Costa Lima 1956. (hb) Costa Lima 1956; Viana 1964: 124. (ds) Blackwelder 1947: 780; Costa Lima 1936; Nunberg 1958a: 481; Pedrosa-Macedo & Schonherr 1985: 33; Schedl 1966f: 89, 1967d: 3, 1970e: 84; Viana 1964: 124. (tx) Anderson, W. H. & Anderson 1971: 21; Costa Lima 1956; Eggers 1928c: 96–97; Nunberg 1958a: 481, 1959a: 431; Pedrosa-Macedo & Schonherr 1985: 33; Schedl 1939j: 564–566, 1951h: 285, 1952a: 446, 1979c: 164.
- neocylindricus** Schedl 1942a: 196. Holotype ♀; Malaya, Selangor, Kepong; BMNH, London.
Distribution: Asia (Malaya).
References: (ds) Browne 1961c: 157. (tx) Schedl 1942a: 196.
- neoscabridus** Schedl 1972b: 269. Holotype ♀; Solomon Islands, Bougainville; Schedl Collection in NHMW, Wien.
Distribution: Solomon Islands.
References: (tx) Schedl 1972b: 269, 1979c: 164.
- neptunus** Schaufuss 1891: 22. Syntypes ♂ ♀; Madagascar; Hamburg Museum, lost.
Distribution: Madagascar.
References: (ds) Alluaud 1900: 440; Fairmaire 1892b; Frappa 1933: 179; Hagedorn 1910d: 107; Kleine 1913b: 162. (tx) Blandford 1898b: 207; Eggers 1922b: 171; Fairmaire 1892b; Hagedorn 1910a: 155, 1913b: 256; Schaufuss 1891: 22, 1905: 19; Schedl 1977b: 144.
- niger** Sampson 1912: 247. Holotype ♀; Ruby Mines, Burmah; BMNH, London.
Distribution: Asia (Burma).
References: (ds) Kleine 1913b: 162, 1914b: 277. (tx) Eggers 1925: 159; Sampson 1912: 247.
- nigrescens** Browne 1980b: 387. Holotype ♀; Palembang (Sumatra) to Nagoya (Japan), imported.
Distribution: Indonesia (Sumatra).
Hosts: *Shorea* sp.
References: (tx) Browne 1980b: 387.
- nigropilosus** Eggers 1943c: 67. Syntypes ♀; Congostaat (Park Natl. Albert Gitebe, Nyamuragira volcan, 2324 m); de Witte Collection.
Figures: Nunberg 1963b: pl. 20, figs. 5–6.
Distribution: Africa (Zaire).
References: (tx) Eggers 1943c: 67–68; Nunberg 1963b: 41, pl. 20; Schedl 1962j: 323.
- nitellus** Browne 1984d: 99. Holotype ♀; New Guinea: Hump L. A.; BMNH, London.
Distribution: New Guinea.
Hosts: *Araucaria cunninghamii*.
References: (tx) Browne 1984d: 99.
- nitens** Browne 1984d: 97. Holotype ♀; New Guinea: Popondetta; BMNH, London.
Distribution: New Guinea.
Hosts: *Gardenia* sp.
References: (tx) Browne 1984d: 97.
- nitidulus** Eggers 1927a: 192. Holotype ♀; Belg.-Congo, Sankuru, Bas Uele (Koteli); MRCB, Terwuren, 1 cotype in Eggers Collection, in NHMW, Wien.
Figures: Nunberg 1963b: pl. 20, figs. 7–10.
Distribution: Africa (Zaire).
Hosts: *Klainedoxa gabonensis*, *Pycanthus angolensis*, *Sarcocephalus* sp., *Staudtia stipitata*.
References: (bv) Schedl 1960f: 64. (cn) Chesquiere 1933a: 31–35, 1933b: 781. (hb) Schedl 1962j: 323. (ds) Chesquiere 1933a; Kleine 1934a: 174; Schedl 1960f: 40, 1962j: 323. (tx) Eggers 1927a: 192–193; Nunberg 1963b: 42, pl. 20; Schedl 1962j: 323, 1979c: 169.
- norfolkensis** Schedl 1972b: 270. Holotype ♀; Norfolk Island, Mt. Pitt, 240 m; CSIRO, Canberra.
Distribution: Norfolk Island.
References: (tx) Schedl 1972b: 270.
- nossi** Schedl 1961e: 146. Holotype ♀; Madagascar, Montagne d'Ambre; IRSM, Madagascar.
Distribution: Madagascar.
References: (tx) Schedl 1961e: 146, 1977b: 161, 1979c: 171.
- novagranadensis** Eggers 1941a: 103. Holotype ♀; Venezuela (Neu Granada); USNM, Washington.
Distribution: Antilles Islands (Guadeloupe), South America (Venezuela).
References: (ds) Bright 1985c: 174; Schedl 1980b: 184. (tx) Anderson, W. H. & Anderson 1971: 22; Bright 1985c: 174; Eggers 1941a: 103.
- nubilis** Samuelson 1981: 80. Holotype ♀; Hawaii: Hilo Forest Reserve, 1–2 km S Saddle Road, 1200 m; BPBM, Honolulu.
Figures: Samuelson 1981: 56.
Distribution: Hawaiian Islands (Hawaii).
Hosts: *Myrsine*.
References: (tx) Samuelson 1981: 56, 80.
- nuperus** Bright 1972d: 76. Holotype ♀; Hardwar Gap, 4000 feet, St. Andrew Parish, Jamaica; CNCI, Ottawa.
Figures: Bright 1972d: 95.

Distribution: Antilles Islands (Jamaica).

Notes: (3) This species may belong to *Ambrosiodermus*.

References: (ds) Bright 1985c: 174. (tx) Bright 1972d: 76, 95, 1985c: 174; McNamara 1977: 200.

oahuensis Perkins 1900: 177. Holotype ♀; Oahu, Koolau Range, 1000 ft.; BMNH, London.

Figures: Samuelson 1981: 60.

Distribution: Hawaiian Islands (Oahu).

Hosts: *Pelea* sp.

References: (ds) Beeson 1938b: 293; Hagedorn 1910d: 107, 1913b: 162, 1914b: 303; Samuelson 1981: 81. (tx) Hagedorn 1910a: 155; Perkins 1900: 177; Samuelson 1981: 60, 81.

obesus LeConte 1868: 159. Lectotype ♀; Virginia [USA]; MCZ, Cambridge, designated by Wood 1982b: 793.

Figures: Bright 1976d: 132.

Distribution: North America (Ontario, Quebec in Canada/ Connecticut, Massachusetts, Minnesota, Wisconsin in USA).

Hosts: *Acer* sp., *Betula* sp., *Fagus grandifolia*, *Liriodendron* sp., *Populus tremuloides*, *Quercus* sp.

References: (ay) Hopkins 1894g: 278. (bv) Hosking & Knight 1975; Kirkendall 1984: 241. (cn) Blackman 1950; Doane et al. 1936; Felt 1906: 722; Hubbard 1897b: 23; Lintner 1888: 52–59, 1896: 270; Packard 1890: 520; Peirson 1927: 89; Smith, J. B. 1900: 363; Swaine 1918a: 124, 126. (ec) Felt 1906: 722; Roeper & French 1981; Steinhaus 1946: 404; Thompson, W. R. & Simmonds 1964: 39, 1965: 68. (hb) Blackman 1950; Chamberlin 1939: 445; Chittenden 1890; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Drake 1921: 201, 204; Felt 1906: 722; Hopkins 1894b: 295, 1894g: 278, 1905a: 383; Hubbard 1897b: 23; Packard 1890: 520; Peirson 1927: 89; Pierce, W. D. 1907: 291; Swaine 1918a: 124, 126. (ds) Anonymous 1926c: 520; Baker, W. L. 1972: 271; Beaulne 1956; Blackman 1950; Blatchley & Leng 1916: 625; Bright 1968b: 1304, 1976d: 133; Chamberlin 1925, 1939: 445; Chittenden 1890; Cook 1891; Deyrup 1981b: 7; Deyrup & Atkinson 1987a: 65; Dodge 1938: 13, 53; Drake 1921: 201–205; Drooz 1985: 374; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 107; Henshaw 1882: 269, 1885: 148; Hopkins 1893a: 135, 1893b: 211; Kleine 1913b: 168, 1914b: 395, 410, 1934a: 177; Knoll 1932: 67; Leng 1920: 342; Leonard 1928: 520; Schwarz 1886: 41, 45, 1887: 20; Smith, J. B. 1900: 363, 1910: 402; Swaine 1909: 155; Wood, S. L. 1982b: 793. (tx) Benoit 1985: 284; Blatchley & Leng 1916: 625; Bright 1968b: 1304, 1976d: 132–133; Chamberlin 1939: 445; Dodge 1938; Eichhoff 1878b: 323–324; Hagedorn 1910a: 155; Hopkins 1915b: 68–69; Hubbard 1897b: 23; LeConte 1868: 159, 1876: 359–360; Schedl 1964k: 314; Schwarz 1886: 41, 45, 1888: 45; Swaine 1909: 155, 1910b:

162, 1917: 22–23, 1918a: 124–126; Wood, S. L. 1982b: 793.

serratus Swaine 1910b: 162. Lectotype ♀; Ste. Anne de Bellevue, Quebec; CNCI, Ottawa, designated by Bright 1967b: 680. Synonymy: Hopkins 1915b: 69.

References: (ds) Leng 1920: 342; Swaine 1911: 92. (tx) Bright 1967b: 680; Hagedorn 1910a: 157; Hopkins 1915b: 68–69; de Ruelle 1970: 115; Schedl 1979c: 225; Swaine 1910b: 162–165, 1918a: 125.

populi Swaine 1917: 22. Lectotype ♀; Ste. Anne de Bellevue, Quebec Canada; CNCI, Ottawa, designated by Bright 1967b: 673. Synonymy: Schedl 1964m: 314.

References: (bv) Hosking & Knight 1975. (cn) Blackman 1950; Doane et al. 1936; Swaine 1918a: 124–125. (hb) Blackman 1950; Chamberlin 1939: 446–447; Doane et al. 1936; Drake 1921: 203–204; Swaine 1918a: 124–125. (ds) Beaulne 1956; Blackman 1950; Chamberlin 1939: 446–447; Kleine 1934a: 177; Leng 1920: 342. (tx) Bright 1967b: 673, 1968: 1304; Chamberlin 1939: 446–447; Hoesbeke 1978; de Ruelle 1970: 97; Schedl 1964m: 314; Swaine 1917: 22–23, 1918a: 124–126; Titus, Meikle, & Harrison 1985: 24.

obiensis Browne 1980a: 375. Holotype ♀; Obi Island (Moluccas) to Nagoya (Japan), imported; BMNH, London.

Distribution: Indonesia (Moluccas).

Hosts: *Shorea* sp.

References: (tx) Browne 1980a: 375.

obliquus Sharp 1885: 192. Holotype ♀; near Honolulu, Hawaiian Islands; BMNH, London.

Figures: Nobuchi 1978apl. 2, Samuelson 1981: 60. Distribution: Hawaiian Islands (Oahu).

Hosts: *Byronia sandwicensis*, *Ilex anomala*.

Notes: (1) Bright (1968b: 1301) transferred *Pityophthorus obliquus* LeConte into *Xyleborus*, although it did not belong there; consequently, Samuelson (1981: 88) placed Sharp's name in homonymy unnecessarily; because this occurred after 1960, Sharp's name is restored.

References: (ds) Baker, W. L. 1972: 271; Beeson 1938b: 293; Bright 1968b: 1301, 1981c: 157; Drooz 1985: 374; Hagedorn 1910d; Kleine 1913b: 162, 1914b: 302; Wood, S. L. 1977a: 73. (tx) Bright 1968b: 1301; Hagedorn 1910a: 155; Nobuchi 1978apl. 2; Perkins 1900: 176; Samuelson 1981: 88; Schedl 1941f: 14; Sharp 1885: 192–193.

tantalus Schedl 1941f: 114. Lectotype ♀; Oahu; Tantalus; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 249 and by Samuelson 1981: 88. Synonymy: Wood 1966b: 32. Notes: (3) Samuelson 1981: 88 (described male). References: (ds) Samuelson 1981: 88; Swezey 1941: 122, 1954: 109. (tx) Samuelson 1981:

60, 88; Schedl 1941f: 114, 1979c: 249; Wood, S. L. 1966b: 32.

oblicatus Schedl 1980d: 122. Holotype ♀; near Honolulu, Hawaiian Islands; BMNH, London, automatic, an unneeded replacement name.

References: (tx) Schedl 1980d: 122.

oblongus Schedl 1950d: 32. Holotype ♀; Isles Seyshelles; Schedl Collection in NHMW, Wien.

Distribution: Africa (Seychelles Islands).

References: (cn) Beaver 1988a: 66. (hb) Beaver 1988a: 66. (ds) Beaver 1988a: 66; Schedl 1969d: 12. (tx) Schedl 1950d: 32, 1969d: 12, 1977b: 162, 1979c: 174.

obstipus Schedl 1935f: 270. Lectotype ♀; Malay Peninsula: Pahang, Fraser's Hill and Cameron's Highlands; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 175.

Distribution: Asia (Malaya).

References: (ds) Browne 1961c: 136. (tx) Schedl 1935f: 270, 1979c: 175.

obtusatus Schedl 1972m: 200. Holotype ♀; Borneo; BMNH, London.

Distribution: Indonesia (Borneo).

References: (tx) Schedl 1972m: 200.

octiesdentatus Murayama 1931a: 46. Holotype ♀; Kannanri, Korea; Murayama Collection in USNM, Washington.

Figures: Yin, Huang, & Li 1984: 159.

Distribution: Asia (Sichuan in China/ Japan/ Korea).

Hosts: *Carpinus laxiflora*, *Cleyera* spp., *Eurya japonica*, *Illicium religiosum*.

References: (ay) Murayama 1933a: 2. (cn) Shiraki 1952. (ds) Cho 1957, 1963; Choo 1983: 107; Choo & Woo 1985: 166; Kleine 1934a: 175; Ko 1969: 285; Murayama 1929b: 2, 1930b: 21, 1931a: 46, 1937b: 375, 1949c: 103, 1950b: 1297; Nobuchi 1985c: 26; Shiraki 1952. (tx) Choo 1983: 107; Murayama 1930b: 21, 25, 31, 1931a: 41, 46–48, 1933a: 2, 32–33, 1934c: 300, 1937b: 375, 1950b: 1297, 1954b: 204; Schedl 1934f: 1646; Yin, Huang, & Li 1984: 159.

ohnoi Browne 1980a: 375. Holotype ♀; Keelung (Formosa) to Nagoya (Japan), imported; BMNH, London.

Distribution: Asia (Taiwan).

Hosts: *Quercus* sp.

References: (tx) Browne 1980a: 375.

ohtoensis Nobuchi 1981d: 149. Holotype ♀; Mt. Ohto, Wakayama, Japan; Nobuchi Collection, Ibaraki.

Figures: Nobuchi 1981d: 153.

Distribution: Asia (Japan).

Hosts: *Illicium religiosum*.

References: (ds) Nobuchi 1985c: 26. (tx) Nobuchi 1981b: 149, 153.

okinosenensis Murayama 1961b: 31. Holotype ♀; Japan: Tottori Pref. Mt. Okinosen and Kamiishikawa, Niigata pref.; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan).

Hosts: *Quercus* sp.

References: (cn) Anonymous 1980g. (ds) Anonymous 1980g; Nobuchi 1985c: 26. (tx) Murayama 1961b: 31.

oneratus Schedl 1976a: 76. Holotype ♀; V. Vera, M. Grosso, Lon. 55 degrees 36', Lat. 12 degrees 48', Brazil; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1976a: 76.

onoharaensis Murayama 1934c: 293. Holotype ♀?; Kiushu: Tarumidzu, Onohara, Kagoshima Pref.; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan).

Hosts: *Quercus* sp.

References: (ds) Murayama 1954b: 204; Nobuchi 1985c: 26. (tx) Murayama 1934c: 293, 1954c: 26.

operosus Schedl 1973e: 91. Holotype ♀; Wau, Morobe Dist. [New Guinea], 400 m; BPBM, Honolulu.

Distribution: New Guinea.

References: (tx) Schedl 1973e: 91.

opulentus Schedl 1975f: 369. Holotype ♀; Mt. Dayman, Maneau Range, New Guinea, 700 m, N. slope; AMNH, New York.

Distribution: New Guinea.

References: (tx) Schedl 1975f: 369.

orientalis Eggers 1933f: 54. Holotype ♀; Wladivostok, USSR; USNM, Washington.

Figures: Tsai & Li 1959: 103.

Distribution: Asia (Sibera, Ussuri in E USSR).

Hosts: *Acer* spp., *Kaloranax ricinifolia*.

References: (ec) Kurenzov 1934a: 58. (hb) Kurenzov 1948b: 121; Stark 1952: 432. (ds) Krivolutsкая 1983; Kurenzov 1934a: 58; Stark 1952: 432. (tx) Eggers 1933f: 54–55; Kurenzov 1941a: 186–188, 1948b: 121; Stark 1952: 432; Tsai & Li 1959: 103.

orientalis kalopanacis Kurenzov 1941a: 187. Holotype ♀; Far East, USSR; Kurenzov Collection at Vladivostok.

References: (tx) Kurenzov 1941: 187–189.

orientalis aceris Kurenzov 1941a: 188. Holotype ♀; Far East, USSR; Kurenzov Collection at Vladivostok.

References: (tx) Kurenzov 1941a: 186–189.

perorientalis Schedl 1957d: 85. Holotype ♀; Wladivostok, USSR; USNM, Washington, unneeded replacement name. Synonymy: Browne 1962d: 50.

References: (tx) Browne 1962d: 50; Schedl 1957d: 85.

- osumiensis** Murayama 1934c: 292. Holotype ♀; Nagao Forest, Osumi Peninsula, Kagoshima pref.; Murayama Collection in USNM, Washington. Distribution: Asia (Japan). Hosts: *Illex oldhami*. References: (ds) Murayama 1954b: 204; Nobuchi 1985c: 27. (tx) Murayama 1934c: 290–293, 1954b: 204, 1955: 85.
- palatus** Wood 1974a: 35. Holotype ♀; 24 km W Armeria, Colima, Mexico; Wood Collection. Distribution: North America (Colima, Jalisco, Nayarit in Mexico). Hosts: Limbs of trees and shrubs. References: (ec) Equihua & Atkinson 1986: 630. (hb) Equihua & Atkinson 1986: 630; Wood, S. L. 1982b: 797. (ds) Atkinson & Equihua 1988: 102; Equihua & Atkinson 1986: 630; Wood, S. L. 1982b: 797. (tx) Wood, S. L. 1974a: 35, 1982b: 797.
- papatrae** Schedl 1972i: 53. Holotype ♀; Rapontanion, New Ireland District, New Guinea; CSIRO, Canberra. Distribution: New Ireland Island. Notes: (3) This is a possible synonym of *mucronatoides*. References: (tx) Schedl 1972i: 53, 1979c: 183.
- papuanus** Blandford 1896b: 209. Holotype ♀; New Guinea; BMNH, London. Distribution: New Guinea. References: (ds) Hagedorn 1910d: 107; Kleine 1913b: 162, 1914b: 296. (tx) Blandford 1896b: 209; Hagedorn 1910a: 155.
- parallelocollis** Eggers 1933b: 33. Holotype ♀; Franz, Guayana (Nouveau Chantier); MNHN, Paris. Distribution: North America (Costa Rica, including Isla del Coco), South America (Cayenne/Colombia). Hosts: *Theobroma cacao*. References: (hb) Wood, S. L. 1982b: 818. (ds) Atkinson & Equihua 1988: 102; Blackwelder 1947: 780; Bright 1982a: 128; Schedl 1960a: 76; Wood, S. L. 1982b: 818. (tx) Eggers 1933b: 3, 33–34; Schedl 1979c: 183, 185; Wood, S. L. 1982b: 818.
- parallelus** Eggers 1936c: 39. Holotype ♀; S. Rhodesia; Salisbury; BMNH, London. Distribution: Africa (Zaire/ Zimbabwe). Hosts: *Theobroma cacao*. References: (hb) Loytyniemi, Beaver, & Loytyniemi 1984. (ds) Beaver & Loytyniemi 1985a: 75; Schedl 1962j: 374. (tx) Eggers 1936c: 39; Schedl 1939j: 565, 1962j: 374, 1979c: 185.
- parcellus** Wood 1968b: 2. Holotype ♀; Bartica triangle, British Guiana; BMNH, London. Distribution: South America (Brazil/ Guyana). Hosts: *Chaetocarpus echinocarpus*, *Copaifera langsforsii*, *Eperua falcata*, *Eschweilera sagotianum*, *Kairiballi* sp., *Marcgravia* sp., *Pouteria* sp., *Sloanea* sp., *Tococa fornicaria*. References: (hb) Beaver 1976a: 25. (ds) Beaver 1976a: 25. (tx) Wood, S. L. 1968b: 2.
- pardous** Eggers 1943d: 247. Holotype ♀; Brasil (Staat Sao Paulo, Tal des Rio Pardo); Strohlmeyer Collection. Figures: Nunberg 1959a: pl. 25, figs. 6–7. Distribution: South America (Brazil). References: (tx) Eggers 1943d: 247; Nunberg 1959a: 433.
- parinarie** Schedl 1962j: 306. Holotype ♀; Congo Belge: Hembe-Bitale; Schedl Collection in NHMW, Wien. Distribution: Africa (Zaire). Hosts: *Parinari holstii*. References: (tx) Schedl 1962j: 306, 1979c: 185.
- partitus** Browne 1974a: 69. Holotype ♀; Fiji: Viti Levu, Nausori Highlands; BMNH, London. Distribution: Fiji Islands, New Guinea. Hosts: *Dacrydium* sp. References: (ec) Roberts 1977a: 261. (hb) Roberts 1977a: 261. (ds) Browne 1974a: 65; Roberts 1977a: 261. (tx) Browne 1974a: 65, 69.
- granulosus** Schedl 1975f: 366. Holotype ♀; Upper Manki logging area, Bulolo, Morobe District; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1980d: 121. Notes: (3) Beaver 1991: 95 (treated as a good species). References: (ds) Schedl 1979f: 103. (tx) Beaver 1991: 95; Schedl 1975f: 366, 1979c: 112, 1980d: 121.
- parvipunctatus** Eggers 1943a: 387. Holotype ♀; Bolivia (Cochabamba); USNM, Washington. Distribution: South America (Bolivia). References: (tx) Anderson, W. H. & Anderson 1971: 24; Eggers 1943a: 387–388; Schedl 1979c: 186.
- pele** Samuelson 1981: 82. Holotype ♀; Hawaii: Oahu, 48 km from Hilo, 3800 ft.; BPBM, Honolulu. Figures: Samuelson 1981: 63. Distribution: Hawaiian Islands (Hawaii). Hosts: *Cheirodendron* sp. References: (tx) Samuelson 1981: 63, 82.
- pelliculosus** Eichhoff 1878b: 336. Syntypes ♀; Nipon, insula Japonica Asiatica; Hamburg Museum, lost. Distribution: Asia (Sichuan in China/ Japan), North America (introduced: Maryland, Pennsylvania). Hosts: *Acer* sp., *Castanopsis* sp., *Quercus acuta*, *Q. stenophylla*, *Shiia sieboldii*. References: (cn) Murayama 1954a: 11. (ds) Atkinson, Rabaglia, & Bright 1990: 95; Blandford 1894c; Kleine 1913b: 162, 1914b: 260; Murayama 1936a: 135, 1954a: 11, 1954b: 181; Nobuchi 1985c: 27; Yin, Huang, & Li 1984: 158. (tx) Atkinson, Rabaglia, & Bright 1990: 95; Eggers 1923a: 209–210, 1930a: 204; Eichhoff 1878a: 392, 1878b: 336; Murayama 1934c: 297–300, 1936a: 135, 1954b:

181; Niisima 1909: 160; Schedl 1934d: 87, 1934f: 1646, 1962j: 279; Yin, Huang, & Li 1984: 158.

pentaclethrae Schedl 1957d: 87. Holotype ♀; Congo Belge: Bas-Congo, Lukii; MRCB, Tervuren. Figures: Nunberg 1963b: pl. 21, figs. 5–8.

Distribution: Africa (Zaire).

Hosts: *Pentaclethra macrophylla*.

References: (**hb**) Schedl 1962j: 168. (**ds**) Schedl 1962j: 168. (**tx**) Nunberg 1963b: 43, pl. 21; Schedl 1957d: 87, 1962j: 168, 1979c: 188.

peramplloides Schedl 1957d: 102. Holotype ♀; Kenya, Ngong; Schedl Collection in NHMW, Wien.

Distribution: Africa (Kenya/ Uganda).

References: (**ds**) Schedl 1962j: 324. (**tx**) Schedl 1957d: 102, 1962j: 324, 1979c: 188.

peramplus Schedl 1950d: 31. Holotype ♀; Deutsche Ost-Afrika; Schedl Collection in NHMW, Wien.

Distribution: Africa (Tanzania/ Zaire).

References: (**ds**) Schedl 1962j: 374. (**tx**) Schedl 1950d: 31, 1954e: 82, 1962j: 374, 1979c: 188.

percristatus Eggers 1939a: 12. Holotype ♀; Nordost-Birma (Kambaiti, 7000 Fuss); NHR, Stockholm.

Distribution: Asia (Burma/ Sichuan in China).

References: (**tx**) Eggers 1939a: 12–13; Schedl 1942a: 186, 1955h: 46, 1979c: 188.

perdilgens Schedl 1937b: 399. Lectotype ♀; Urwald hinter dem Randgebirge, N.W. Tanganjikasees; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 189.

Distribution: Africa (Kenya/ Tanzania/ Zaire).

References: (**ds**) Schedl 1962j: 496. (**tx**) Schedl 1937b: 399, 1954e: 54, 79, 1957d: 107, 1962j: 496, 1979c: 188.

perforans (Wollaston) 1857: 96 (*Tomicus*). Syn-types ♀; Madera; BMNH, London.

Figures: Chandra 1981: 288, Nobuchi 1967: pl. 2, 1978a: pl. 4, Samuelson 1981: 53, Wood 1960a: 65.

Distribution: Africa (Grande Comore in Azores Islands/ Cameroon/ Canary Islands/ Cape Verde Islands/ Gabon/ Ivory Coast/ Kenya [including Pleistocene fossils]/ Madeira/ Malawi/ Mauritius/ Nigeria/ Seychelles Islands/ Sierra Leone/ Somalia/ Tanzania/ Uganda/ Zaire), Asia (Burma/ Guangxi, Yunnan in China/ Malaya/ Andaman Islands in India/ Japan/ Okinawa Island/ Sri Lanka/ Taiwan/ Thailand/ Tonkin Island in Vietnam), Admiralty Islands, Australia, Cook Islands, Fiji Islands, Guam, Hawaiian Islands, Indonesia (Bali, Batu, Borneo, Celebes, Java, Nilas Island, Sumatra), Madagascar, Micronesia (Kiribati Islands, Mariana Islands, Palau Islands, Society Islands), New Caledonia, New Guinea, New Hebrides Islands, Niue Island, Philippine Islands (Bangui, Engano), Reunion Island, Samoan Islands, Solomon Islands, Tahiti, Tuamotu Island.

Hosts: Many listed by Brimblecombe 1953: 30–33, Browne 1961c: 141, Gray & Wylie 1974: 86–89, Schedl 1962j: 390–399. *Shorva robusta*.

Notes: (3) An apparent synonym is *apertus* (DEB).

References: (**ay**) Herfs 1949: 26; Hill, D. S. 1983: 496; Hopkins 1894g, (**bv**) Beeson 1917; Gray, B. 1974c; Moeck 1970b: 993. (**cn**) Alibert 1951: 149; Alliot & Ivanes 1950; Anonymous 1964e, 1973q, 1979p; Ballard 1921; Beaver 1988a: 66; Beeson 1915: 8–11, 1916: 1–5, 1919: 10–15; Beille 1913; Bigger 1982: 255; Blandford 1892b, 1893c1–46; Bodkin 1913: 1–4; Box 1953a; Brimblecombe 1951, 1956; Browne 1952, 1968: 716; Bruner 1928: 27–32; Chevalier 1931; Cotes 1893b: 155; Dinther 1961; Ebeling 1950: 537; Edwards 1933: 16–18, 1935: 454–458; Faber 1909; Froggatt 1925, 1927: 58–59; Garman 1905; Ghesquiere 1933a; Gowdey 1918: 42–51; Gray, B. & Wylie 1974; Green 1912a: 39, 1916: 608–636; Hagedorn 1904g, 1913a; Hall 1932: 265; Hayward 1942: 29; Herfs 1949: 26; Hill, D. S. 1983: 496; Hollrung 1902: 134–135; Hubbard 1897b: 20; Ishikura 1966; Kalshoven 1924c, 1932: 243, 1954: 13, 1961c; Kleine 1932a: 305; Koningsberger 1898: 38, 1908: 76; Koningsberger & Zimmermann 1901: 97–98; Lever 1940a: 38; Mathur & Singh 1960b: 24, 1961b: 48; Maxwell-Lefroy 1909: 395; Mayne 1917: 27, 1919: 22; Mesa 1931: 17; Navel 1921: 77, 94; Ormerod 1892; Paine 1934: 39–41, 1935: 39; Petch 1921: 233; Pierce, W. D. 1917: 193; Roberts 1987; Rutgers 1920: 1–43; Rutherford 1914b: 222; Seshadri 1968; Small 1921: 38; Smith 1921: 1–23; Stebbing 1914: 583; Supriana et al. 1978; Swabey 1935: 6; Swezey 1945: 353; Toker 1952: 347; Van Dine 1926: 1–11; Wolcott 1933: 202, 373; Wurth 1908: 64; Wylie & Shanahan 1975; Wyniger 1962a: 57, 1962b: 179; Zehntner 1899: 586–587, 1900: 503. (**ec**) Beeson 1923; Browne 1958b; Hagedorn 1907c; Kalshoven 1961c; Muesebeck 1937: 24; Roberts 1977a: 263; Sharples 1936: 384; Stebbing 1914: 583. (**hb**) Ashby 1915: 299; Baltazar & Salazar 1979: 86; Batista 1947: 78; Beaver 1976b: 541, 1988: 66; Beaver & Browne 1978: 610; Beeson 1916a: 221, 1917, 1923; Beffa 1949; Blandford 1892b, 1894b; Brimblecombe 1951, 1956; Browne 1941: 62, 67, 1949: 174–189, 1958b, 1961c: 141–143, 1961d: 49, 1963a: 242, 1965a: 253, 1968b: 716; Chobaut 1897: 262; Cotes 1893a, 1893b; Eggers 1905: 98; Froggatt 1925, 1927; Gray, B. 1968: 311, 1974c; Gray, B. & Wylie 1974; Hagedorn 1913a: 21–22; Herfs 1949a: 26; Hopkins 1894g, 1905c: 148; Hubbard 1897b: 20–21; Kalshoven 1924c: 8–10, 1958a: 186, 1959a: 224, 1959c: 140, 1961c, 1962a: 17, 19, 1964; Kleine 1932a: 305; Morstatt 1924: 49; Roberts 1977a: 263, 1987; Schedl 1962j: 374; Schedl, W. 1962: 369; Seshadri 1968; Sharples 1936: 384; Speyer 1923: 12; Stebbing 1908a: 111, 1914: 583; Take-mori & Daimon 1973; Thomas 1960: 77; Viana 1964: 123; Wylie & Shanahan 1975; Yoshida et al.

- 1977; Zehntner 1900: 1–21, 1900: 503. (**ds**) Alibert 1951: 149; Alluaud 1900: 438–442; Aulmann 1911: 436–441; Bain 1974: 15; Ballard 1921: Beaver 1976: 541, 1957b: 65, 1958a: 66, 1990b: 150; Beaver & Browne 1978: 610; Beeson 1916a, 1919b, 1923: 165, 1930: 47–96, 1935: 108, 1938b: 295, 1940: 198–199, 1941: 403–404; Bhasin, Roonwal, & Singh 1958: 36, 98; Blackwelder 1947: 780; Blandford 1893c: 12, 1894b: 261, 1895a: 316, 322, 1896a: 20, 1896f: 243, 1897b, 1898: 475; Brader 1964: 4–5; Brimblecombe 1951: 1–37, 1953: 30–33; Browne 1935a: 4, 1938b: 83–84, 1954: 204, 1958: 164–182, 1961a: 304, 1961c: 141, 1963a: 242, 1965a: 188, 1966: 253, 1968b: 716–717, 1968c: 113, 1970: 542, 1974a: 65, 1975a: 760, 1980c: 486; Bruch 1914: 427–429; Chadwick & Nikitin 1968; Chevalier 1931; Cola 1971, 1973; Cotes 1893a, 1893b, 1896: 4–5, 101–102; Dinther 1960: 111; Dumbleton 1954: 28, 96; Dupont 1917: 20–22; Eggers 1904; Fauvel 1897: 66; Frappa 1933: 179; Froggatt 1936: 18; Gardner 1957: 33; Gemminger & Harold 1872: 2686; Ghesquiere 1933a, 1933b; Cowdley 1923: 17, 45, 1924: 21, 1926: 27; Gray, B. 1967: 9–10, 1968: 311; Gray & Wylie 1974: 86; Green 1912a: 39; Guagliumi 1966: 173; Hagedorn 1904: 449, 1907a: 261, 1907b: 111–112, 1907c: 292, 1910d: 108, 1913a; Hargreaves 1925: 21–28, 1937: 510; Hart 1892: 342, 1893: 51–52; Hill, D. S. 1983: 496, 1987: 341; Horion 1951; Ishikura 1966; Jansson 1940: 63; Kalshoven 1924b: 357, 1932: 243, 1939: 334, 1951: 854, 1954: 13, 1958a: 186, 1959c: 140, 1964: 131; Kleine 1912a: 162, 212, 1913b: 162, 1914a: 22–23, 1914b: 270, 274, 279–280, 288, 290, 301, 312, 315, 323, 327, 1928: 305–306, 1932a: 305, 1934a: 175; Kolbe 1910: 40; Koningsberger 1908: 76; Kraus 1943: 88; Lacordaire 1866: 383; Lee 1971: 31; LePelley 1968: 145; Lepesme et al. 1948: 647–648; Lever 1940: 38, 1941: 79, 1945: 367; Lundblad 1958: 489; Mathur & Singh 1960a: 24; Maxwell-Lefroy & Howlett 1909: 395; Mesa 1935: 95; Murayama 1934d: 510; Nobuchi 1967: 14, 22, 1978a: 41, 1979a: 407; Nobuchi & Ono 1973: 182; Nonveiller 1984: 42; Numberg 1960b: 161, 1961a: 331, 1963c: 98, 1965b: 21, 1972b: 198; Ohno, Yoneyama, & Nakazawa 1982a: 4, 1982b: 8, 1987a: 88, 1987b: 94; Ohno, Yoshioka, Uchida, Yoneyama, & Tsukamoto 1989: 64; Ohno, Yoshioka, Yoneyama, & Nakazawa 1988a: 94; Pierce, W. D. 1917: 193; Pope 1924: 14–15; Roba 1935: 340; Roberts 1969: 131–133, 1977a: 263; Roonwal 1954: 19–86; Sampson 1914: 387; Samuelson 1981: 82; Schedl 1931c: 346, 1934f: 1646, 1935j: 1, 1936a: 529, 1936j: 5, 21, 1937c: 544, 1938g: 426–427, 1939a: 468, 1939e: 332, 1939f: 51, 1940a: 320–321, 1940b: 433–435, 1941d: 380, 1941f: 116, 1942a: 171, 1942b: 148, 1942c: 164, 380, 1942d: 7, 1943d: 69, 1948g: 26, 1950f: 40, 54, 1950g: 894–899, 1951i: 45–49, 1952b: 364, 1953b: 124, 1953c: 291, 1953d: 71, 1954a: 143–144, 1955b: 279–287, 1955c: 31, 1955i: 212, 1957a: 194, 1957d: 102, 1958d: 189, 1959a: 503, 1960a: 76, 1961c: 70–71, 1962b: 184–186, 1962h: 65, 1962i: 72–75, 1962j: 374, 1962k: 1101, 1963e: 155, 1963f: 60, 1964c: 304, 1964d: 212, 1964i: 248, 1965a: 340, 1965e: 355, 1965g: 22, 1966b: 63, 1966e: 44, 1966f: 77–78, 1966g: 30–37, 1967f: 151, 1968e: 263, 1969a: 208, 1969c: 54, 1969d: 7–12, 1969e: 156, 1969f: 1, 1969h: 105, 1969i: 137, 1970e: 90, 1970f: 581, 1971a: 278, 1971c: 362, 1971e: 5, 1971f: 149, 1972a: 144, 1972b: 266, 1973b: 211, 1973c: 379, 1974e: 53, 1975a: 451, 1975c: 383, 1975e: 451, 1975h: 352, 1975i: 346, 1975j: 294, 1977b: 176, 1977d: 279, 1977e: 43, 1978d: 73, 1979a: 158, 1979b: 416, 1980b: 184; Schwarz 1895b: 171; Schwerdtfeger 1960: 69–71; Smee 1964: 25; Smith, J. H. 1932: 3–12; Spahr 1981; Speyer 1923: 12, 19, 21; Stahel 1917: 3; Supriana et al. 1978; Swezey 1935: 7, 1941: 123–126, 1954: 14–78; Thomas, R. T. S. 1960a, 1960b; Viana 1964: 123; Wichmann 1914a: 413, 1954a: 521–522; Wollaston 1857: 96, 1865: 237; Wood, S. L. 1957e: 1273, 1960a: 51; Yin, Huang, & Li 1984: 164. (**tx**) Beeson 1929: 240–241; Beffa 1949; Blandford 1892b: 153–178, 1894b, 1898c; Browne 1955: 355; Carne et al. 1980; Eggers 1922a: 88, 1923a: 197, 1925: 154, 1926: 301, 1927a: 193–194, 1930d, 1939: 114; Eichhoff 1875: 203, 1878b: 374–377, 403; Ferrari 1867a: 24, 91–92, 1867b: 107; Green 1912a: 39; Hagedorn 1907a, 1907b, 1910a: 155, 1913b: 257; Hubbard 1897b: 20; Kalshoven 1959a: 224–225; Keler 1928: 30; Lacordaire 1866: 383; Lea 1910: 138; Lever 1941: 79; Nobuchi 1967: pl. 2, 1978a: pl. 4, 1983: 303; Sampson 1914: 387; Samuelson 1981: 53, 82; Schaufuss 1897a: 210; Schedl 1931c: 347, 1934f: 1646, 1952h: 66, 71, 1955b: 278, 1955g: 46, 1958b: 101, 1958i: 214, 1959a: 503, 1960a: 78, 1962j: 374, 1963j: 482, 1977b: 176; Schroder 1901: 91; Schwarz 1895b: 171; Stark 1952: 24; Stebbing 1906: 406–408, 1908b: 1, 1914: 583; Strohmeier 1911b: 24–25; Waterhouse 1882: 21–21; Wichmann 1914a: 413; Wollaston 1857: 96, 1865: 237–238, 1867: 113, 1869: 321; Wood, S. L. 1960a: 51, 65–70, 1969, 1979b: 136; Wylie & Yule 1977; Yin, Huang, & Li 1984: 164.
- testaceus* Walker 1959: 260 (*Bostrichus*). Holotype ♀; Ceylon; BMNH, London. Synonymy: Browne 1955: 355.
- Notes: (1) Schedl 1979c: 252 lists the holotype as being in the Schedl Collection.
- References: (**cn**) Browne 1938b, 1949c; Chandra 1981; Chatterjee et al. 1950: 38; Ebeling 1950, 1959; Kalshoven 1951: 851; Lever 1940a: 38–42, 99–101, 1941: 79, 1945: 370; Mathur, Chatterjee, & Thapa 1965: 17, 1970: 5; Mathur & Singh 1960a: 9, 1960b: 6, 1961a: 10, 1961b: 6; Mumford 1961: 38, 1963: 11; Roonwal 1954: 19; Roonwal, Chatterjee, & Thapa 1961b: 8; Yunus & Hua 1980: 230; Zehntner 1900: 501. (**cc**) Chatterjee & Chatterjee 1951. (**hb**) Chandra 1981; Chatterjee & Chatterjee 1951; Chat-

- terjee et al. 1950; Ebeling 1950; Kalshoven 1951: 851; Zehntner 1900: 501. **(ds)** Beeson 1961: 309; Blackwelder 1947: 780; Chatterjee & Chatterjee 1951; Chatterjee et al. 1950; Dumbleton 1954; Ebeling 1950, 1959; Ferrer 1942; Froggatt 1936; Gardiner 1957a; Gemminger & Harold 1872: 2692; Hagedorn 1910d: 60, 112; Kleine 1913b: 128, 163, 1914b: 273–274; Lacordaire 1866: 583; Lepesme et al. 1948: 647; Lever 1940b: 99, 1941: 79; Mathur & Singh 1960a: 9, 1960b: 6, 1961a: 10, 1961b: 14; Mumford 1961: 38, 1963: 11; Nobuchi 1967: 23; Nunberg 1960a: 295; Roonwal 1954: 19; Roonwal, Chatterjee, & Thapa 1961a: 4, 1961b: 7; Schedl 1936d: 5, 1936g: 529, 1937f: 15, 1938g: 426; Spahr 1981: 62; Swezey 1941: 123, 1954: 14; Yunus & Hua 1980: 230. **(tx)** Browne 1955: 355; Chandra 1981: 288; Eggers 1939c: 114; Ferrari 1867a: 74; Hagedorn 1910a: 106, 157; Lacordaire 1866: 383; Lever 1941: 79; Motschulsky 1863: 511; Schedl 1935j: 1, 1937e: 544, 1939a: 468, 1939e: 332, 1939f: 51, 1940a: 365, 1940b: 434–435, 1941d: 380, 1941f: 116, 1942a: 171, 1942b: 147–148, 1942c: 164, 1942d: 7, 1948g: 26, 1950f: 40, 1950g: 893–894, 899, 1951i: 45, 1951k: 141, 1952b: 364, 1953b: 124, 1953c: 291, 1953d: 71, 1954a: 143, 1955b: 281–282, 1955c: 31, 1955i: 212, 1955i: 214, 1979c: 252; Walker 1859: 260; Wood, S. L. 1960a: 70.
- duponti* Montrouzier 1861: 265. Syntypes ♀; (not seen). Synonymy: Hagedorn 1910d: 108. References: **(ds)** Gemminger & Harold 1872: 2690; Lacordaire 1866: 383. **(tx)** Ferrari 1867a: 74; Hagedorn 1910d: 108; Lacordaire 1866: 383; Montrouzier 1861: 265.
- tuberculatus* Motschulsky 1863: 511 (*Anodius*). Syntypes 2 ♀; Ile Ceylan; IZM, Moscow. Synonymy: Wood 1969c: 117. References: **(ds)** Gemminger & Harold 1872: 2686; Hagedorn 1910d: 112; Kleine 1913b: 163, 1914b: 274. **(tx)** Hagedorn 1910a: 157; Motschulsky 1863: 511; Schedl 1959a: 503; Wood, S. L. 1969c: 117.
- denticulus* Motschulsky 1863: 512 (*Anodius*). Lectotype ♀; Ceylon, type labeled Indie Occidentale; IZM, Moscow, designated by Wood 1969c: 117. Synonymy: Wood 1969c: 117. Notes: (1) Although the lectotype label and all subsequent references to this name have the spelling *denticulatus*, the only spelling used by Motschulsky is that cited above. References: **(ds)** Gemminger & Harold 1872: 2685; Hagedorn 1910d: 101; Kleine 1913b: 160, 1914b: 270. **(tx)** Eggers 1929e: 48; Hagedorn 1910a: 153; Motschulsky 1863: 512; Schedl 1959a: 505, 1962j: 459; Wood, S. L. 1969c: 117.
- kraatzii* Eichhoff 1868c: 152. Holotype ♀; Ceylon; Hamburg Museum, lost. Synonymy: Schedl 1959a: 503. References: **(cn)** Beeson 1935a; Box 1953a; Ebeling 1959; Holloway 1936: 183; Illingsworth 1938: 24; Kalshoven 1932: 243, 1936a: 188. **(hb)** Beeson 1929; Blandford 1893c: 1–46; Browne 1935a, 1941; Kalshoven 1959a: 224. **(ds)** Beeson 1929, 1930: 241–244, 1935a, 1935b: 108, 114, 1938a, 1938b: 293, 1940, 1961: 306; Browne 1935a; Ebeling 1959; Eggers 1926a; Gemminger & Harold 1872: 2686; Hagen 1890; Kalshoven 1932: 243; Kolbe 1910: 40; Krauss 1943: 88; Murayama 1936b: 115; Sampson 1914: 387; Schedl 1936j: 21. **(tx)** Beeson 1929: 240–243, 1930: 241–244, 1935a: 118, 1935b: 108, 114, 1938: 292, 1940: 198–199; Blandford 1893c: 1–46; Browne 1955: 355; Eggers 1922: 88, 1925: 154, 1926a: 301, 1927a: 194; Eichhoff 1868c: 152, 1875: 203, 1878b: 374; Kalshoven 1959a: 224; Sampson 1914: 387; Schauffuss 1897a: 210; Schedl 1931c: 346, 1934f: 1646, 1951k: 140, 1959a: 503, 1962j: 374; Wood, S. L. 1960a: 70.
- kraatzii philippinensis* Eichhoff 1878b: 374. Holotype ♀; Philippine Islands; Schedl (1979c: 134) Collection in NHMW, Wien. Synonymy: Schedl 1959a: 503. Notes: (3) Eggers 1925: 154 erroneously synonymized this species with *volvulus* Fabricius, a species not yet known from the Philippine Islands. References: **(ds)** Nobuchi 1967: 22; Nunberg 1961a: 611; Schedl 1936d: 4. **(tx)** Eggers 1925: 154, 1939c: 114; Eichhoff 1878b: 374; Murayama 1934: 505–512; Schedl 1959a: 503, 1962j: 404, 1979c: 134; Strohmeier 1911b: 17, 25.
- immaturus* Blackburn 1885: 193. Syntypes ♀; mountains of Oahu, about 2000 feet, and Hawaii; BMNH, London. Synonymy: Beeson 1929: 240. References: **(cn)** Ehrhorn 1915: 103–161; Pope 1924: 14, 1925: 5. **(ds)** Barber 1914: 59; Beeson 1938: 292; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 302, 1934a: 173. **(tx)** Beeson 1929: 240–241; Blackburn 1885: 193; Hagedorn 1910a: 154; Schedl 1941f: 116, 1962j: 374, 1979c: 121; Sharp 1892: 193.
- hirsutus* Lea 1893: 321 (*Xylopertha*). Syntypes ♀; Tamworth, Cootamundra, Tweed and Richmond Rivers, New South Wales, Australia; presumably SAM, Adelaide. Synonymy: Schedl 1936g: 529, 1959a: 503. Notes: (1) Lea 1904: 106 (to *Xyleborus*). References: **(cn)** Froggatt 1926a, 1927; Lever 1941: 79; Smith, J. H. 1932: 232. **(hb)** Froggatt 1926a, 1927. **(tx)** Lea 1893: 321, 1904: 106, 1910: 138; Schedl 1936g: 529, 1959a: 503.
- whitteni* Beeson 1935b: 113. Syntypes 4 ♀; Uapou; Hakahetau Valley, 1500 feet; not given [BPBM, Honolulu?]. Synonymy: Beaver 1991: 95.

- References: (ds) Beeson 1938b: 294. (tx) Beaver 1991: 95; Beeson 1935b: 113–114.
- criticus* Schedl 1950g: 899. Lectotype ♀; Port Blair, Andamans, or Manila, P.I.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 70. Synonymy: Wood 1989: 177. References: (ds) Schedl 1966b: 50. (tx) Nobuchi 1983: 302; Schedl 1950g: 899, 1979c: 70; Wood, S. L. 1989: 177.
- perlongus* Eggers 1943a: 386. Holotype ♀; Bolivia (Cochabamba); Eggers Collection, in NHMW, Wien. Distribution: South America (Argentina/ Bolivia/ Peru). References: (tx) Eggers 1943a: 386; Schedl 1979c: 189.
- pulcnerrimus* Schedl 1948d: 38. Holotype ♀; Peru; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 177. References: (tx) Schedl 1948d: 38, 1950i: 146, 1979c: 203; Wood, S. L. 1989: 177.
- pulchripes* Schedl 1958f: 46. Holotype ♀; Argentinien: Misiones; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 177. References: (tx) Schedl 1958f: 46, 1979c: 203; Wood, S. L. 1989: 177.
- pernotus* Schedl 1934d: 88. Lectotype ♀; Java, Mt. Gede, 900 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 190. Distribution: Indonesia (Java). References: (hb) Kalshoven 1959c: 143. (ds) Kalshoven 1935a: 14, 1959c: 143. (tx) Schedl 1934d: 88, 1951i: 63, 1979c: 190.
- perplexus* Schedl 1969b: 218. Holotype ♀; Kerevat, New Britain District, New Guinea; CSIRO, Canberra. Distribution: New Britain Island. Hosts: *Araucaria cunninghamii*, *Pometia pinnata*. References: (tx) Schedl 1969b: 218, 1979c: 190.
- perpunctatus* Schedl 1971c: 382. Holotype ♀; Sarawak, Senengoh; BMNH, London. Distribution: Indonesia (Sarawak in Borneo). Hosts: Rattan. References: (tx) Schedl 1971c: 382, 1979c: 191.
- persimilis* Eggers 1927c: 97. Lectotype ♀; Philipinen: Mindanao, Prov. Surigao, Surigao; USNM, Washington, designated by Anderson & Anderson 1971: 24. Figures: Nobuchi 1978a: pl. 2. Distribution: Asia (India/ Malaya), Indonesia (Sarawak in Borneo), Philippine Islands (Mindanao). Hosts: *Balanocarpus heimii*, *Shorea parvifolia*, *S. rugosa*. References: (cn) Mathur & Singh 1961a: 41. (hb) Browne 1941. (ds) Beeson 1961: 308; Mathur & Singh 1961a: 41; Nobuchi 1978a: 19; Schedl 1936d: 4, 1936j: 20, 1964c: 304, 1966b: 65, 1966g: 32, 1971c: 365. (tx) Anderson, W. H. & Anderson 1971: 24; Eggers 1927c: 97–98; Nobuchi 1978a: pl. 2, 1983: 303; Schedl 1936d: 4, 1936j: 20, 1937e: 544, 1942a: 171, 1962n: 699, 1979c: 191.
- balanocarpi* Nunberg 1961b: 619. Holotype ♀; Malay Peninsula, Kelantan Ulu Lebir; BMNH, London. References: (tx) Nunberg 1961a: 630.
- peruvianus* Schedl 1951m: 123. Holotype ♀; Peru, Chanchamajo; Schedl Collection in NHMW, Wien. Distribution: South America (Peru). References: (tx) Schedl 1951m: 123, 1979c: 192.
- pfeili* (Ratzeburg) 1837: 168 (*Bostrichus*). Syntypes ♀; Luneburgschen und in Bayern; not located. Figures: Balachowsky 1949a: 222, 230, Grune 1979: 154, Nobuchi 1978a: pl. 4, Nunberg 1978: 115, Pfeffer 1989a: pl. 8. Distribution: Africa (Algeria/ Morocco), Asia (Fujian, Sichuan in China/ Japan/ Korea/ Turkey), Europe (Austria/ Belgium/ Bulgaria/ Czechoslovakia/ France/ Germany/ Greece/ Hungary/ Italy/ Poland/ Romania/ Spain/ Switzerland/ W USSR), New Zealand (introduced). Hosts: *Abies fabri*, *Acer* sp., *Alnus* sp., *Castanea* sp., *Chamaecyparis obtusa*, *Cinnamomum* sp., *Diospyros kaki*, *Fagus sylvatica*, *Machilus* sp., *Populus tremula*, *P.* sp., *Pterocarpus dalbergoides*, *Quercus* sp., *Schima* sp., *Sterculia campanulata*, *Terminalia biolata*, *Ulmus* sp. Notes: (3) Reitter 1913a: 82 named an aberration as *covinus*, no status. References: (ay) Escherich 1923b: 488; Finnegan 1963: 137; Francke-Grosmann 1956b; Murayama 1933a: 2. (bv) Grune 1979: 155. (cn) Anonymous 1980g; Barbey 1925: 648; Murayama 1954a: 25; Nosek 1951: 109; Paulian 1943: 324; Ueno 1960; Wachtl 1901: 381; Wichmann 1927b: 353. (ec) Finnegan 1963: 137; Francke-Grosmann 1956b; Györfi 1941b; Inouye et al. 1955: 109; Kleine 1909a: 49, 77; Nosek 1951: 109, 1959a: 118, 1959b: 87; Pfeffer 1928b: 2, 1943b: 181; Pfeffer & Prihoda 1950: 3; Roubal 1934b: 177; Vite 1952a: 107; Vitzthum 1926: 479; Woodring 1966c: 133. (hb) Baeta Neves 1943a; Barbey 1901: 28, 108, 1925: 648; Bargmann 1906; Brysson 1910; Dombrowsky 1887; Eggers 1908d; Eichhoff 1881a: 54, 278; Escherich 1923b: 488; Györfi 1957; Henschel 1895a: 193; Inouye et al. 1955: 102; Karpiński & Strawinski 1948: 156; Nosek 1959a: 118, 1959b: 87; Paulian 1943: 324; Pfeffer 1942a: 3; Postner 1974: 467; Ratzeburg 1837: 168; Reitter 1908c: 21; Spessivtsev 1913a: 104; Stark 1926a: 336, 1952: 439; Vite 1952a: 107; Wachtl 1876a: 458, 1901: 381; Wichmann 1927b: 353. (ds) Acloque 1896; Anonymous 1980g; Audras & Schaefer 1957; Barthe 1896; Brakman 1966b: 206; Brancsik 1871; Buresh & Lazarov 1956; Buysson 1910; Calver 1884, 1893; Cho 1957; Choo 1983: 108; Choo & Woo 1985: 166; Endrodi 1958b; Escher-

ich 1923b: 488, 1932b; Gaubil 1849; Gemminger & Harold 1872: 2686; Grune 1979: 155; Gyorfi 1940: 47, 1941b; Hagedorn 1910d: 108; Henschel 1895a: 193; Heyden, Reitter, & Weise 1883: 182, 1891: 674, 1901: 713; Hoffmann 1936; Horion 1951; Karpinski 1948b: 230; Karpinski & Strawinski 1948: 156; Kestercanek 1881a: 12; Kleine 1912a: 268, 1913a: 36, 1913b: 162, 1934a: 175; Ko 1969: 285; Kraatz 1869: 60; Lacordaire 1866: 381; Langhoffer 1915c: 158; Lonnicki 1913b: 148; Lucht 1987: 280; Majzlan et al. 1987; Murayama 1929b: 2, 1930b: 22, 1937b: 372, 374, 1954a: 25, 1954b: 181 1955: 100; Negru 1955: 45, 1968a: 456; Nobuchi 1978a: 40; Nunberg 1928b: 88, 109, 1954: 62; Pfeffer 1928b: 2, 1931b: 73, 1936: 90, 1989a: 88; Pittioni 1943: 176; Postner 1974: 467; Ratzeburg 1837: 168; Redtenbacher 1858: 837; Reitter 1869b: 155, 1894a: 90, 1916: 294; Revy & Siroki 1942: 82; Rohrig 1955: 37; Roubal 1941: 275; Sainte-Claire & Mequignon 1938: 449; Schaufuss 1915: 1237; Schaum 1859: 96, 1862: 101; Schedl 1963j: 481–482, 1966g: 30, 1980a: 20, 1981b: 94; Scheidt 1919: 165; Schilsky 1890: 196, 1909: 189; Seidlitz 1872: 396, 1891a: 567, 1891b: 613; Stark 1926a: 336, 1926b: 104, 1927b: 89, 1952: 439; Stein 1868: 114; Stein & Weise 1877: 165; Stierlin 1898: 446; Tredl 1907: 18; Wachtl 1876a: 458; Wichmann 1927a: 69. (**tx**) Acloque 1896; Balachowsky 1949a: 230–231; Barbey 1901: 28, 108; Brancsik 1871; Choo 1983: 108; Dombrowsky 1887; Eggers 1908c: 4–7; Eichhoff 1864b: 37, 1876a: 378–379, 1878b: 360, 1881a: 54, 278, 1883a: 116, 142; Endrodi 1957b; Escherich 1923b: 488; Fauvel 1889; Ferrari 1867a: 20, 1867b: 114; Fleischer 1927; Formanek 1907: 53; Grune 1979: 154–155; Hagedorn 1910a: 155; Henschel 1895a: 193; Hoffmann 1936: 44–45; Jacquelin du Val & Fairmaire 1868: 109; Karpinski & Strawinski 1948: 156; Kuhnt 1913: 1060; Lacordaire 1866: 381; Letzner 1891: 377; Lucht 1987: 280; Murayama 1930b: 22, 1933a: 2, 1937b: 372, 374, 1954b: 181, 1955: 100; Nobuchi 1978a: pl. 4, 1985c: 23; Nunberg 1954: 62, 1978: 115; Pfeffer 1932b: 21, 1942a: 3, 1955a: 196, 1989a: pl. 8; Portevin 1935: 329; Postner 1974: 467; Quaschik 1953: 35; Ratzeburg 1837: 168; Redtenbacher 1849a: 791, 1849b: 26, 1858: 837; Reitter 1894a: 90, 1913a: 81, 1916: 294; Rey 1892b: 30; Schedl 1934f: 1646, 1952f: 88, 1980a: 20, 1981b: 94; Seidlitz 1872: 396, 1891a: 567, 1891b: 613; Spessivtsev 1913a: 104, 1922a: 479, 1931: 60; Stark 1952: 439; Stierlin 1898: 446; Wylie & Yule 1977. (**ms**) Eggers 1912e; Escherich 1932b.

alni Mulsant & Rey 1856: 111 (*Bostrichus*). Syntypes ♀; Environs de Lyon, France; not located. Synonymy: Hagedorn 1910d: 108. References: (**hb**) Wachtl 1876a: 458. (**ds**) Pfeffer 1989a: 88; Schaum 1862: 101; Schilsky 1909: 189; Stein 1868: 114; Stein & Weise 1877: 165; Wachtl 1876a: 458. (**tx**) Buysson 1880; Ferrari

1867a: 21–22, 1867b: 114; Hagedorn 1910d: 108; Letzner 1891: 377; Mulsant & Rey 1856: 111; Perris 1866: 195–196.

vicarius Eichhoff 1875: 203. Holotype ♀; Japan; IRSNB, Brussels. Synonymy: Schedl 1963j: 481. References: (**cn**) Mathur & Singh 1961a: 69, 1961b: 28; Murayama 1954a: 11. (**ds**) Beeson 1930: 262–264, 1961: 310; Blandford 1894c: 579; Hagedorn 1910d: 112; Kleine 1913b: 163, 1914b: 261, 279; Mathur & Singh 1961a: 69, 1961b: 28; Murayama 1954a: 11, 1954b: 185. (**tx**) Beeson 1930: 262–264; Blandford 1894d: 103, 116; Eggers 1925: 154, 1927b: 408; Eichhoff 1875: 203, 1877a: 126, 1878b: 376; Hagedorn 1910a: 157; Murayama 1954b: 185; Schedl 1934f: 1646, 1938h: 462–463, 1962j: 405, 1963j: 481.

adumbratus Blandford 1894d: 115. Syntypes ♀; Nagasaki, Hitoyoshi, Oyama, and Subashiri, Japan; BMNH, London. Synonymy: Schedl 1963j: 482.

References: (**bv**) Choo, Woo, & Park 1988. (**cn**) Anonymous 1980g; Beeson 1915: 8–11; Stebbing 1914: 601; Wichmann 1957a: 83. (**cc**) Stebbing 1914: 601. (**hb**) Niisima 1908b: 18; Stebbing 1914: 601. (**ds**) Anonymous 1980g; Blandford 1894c: 579; Choo 1983: 102; Choo & Woo 1985: 166; Choo, Woo, & Nobuchi 1988a: 134; Choo, Woo, & Park 1988; Cola 1973; Hagedorn 1910d: 98; Kleine 1913b: 158, 1914b: 260; Murayama 1936a: 129, 1949c: 102, 1951c: 4, 1954b: 175, 1955: 102; Niisima 1908b: 18; Nobuchi 1966d: 26; Nohira & Ogawa 1986; Wichmann 1957a: 83; Yin, Huang, & Li 1984: 163. (**tx**) Beeson 1929: 243; Blandford 1894d: 115; Choo 1983: 102; Hagedorn 1910a: 152; Murayama 1934c: 296, 299, 1936a: 129, 1954b: 175, 1955: 102; Nobuchi 1966d: 26, pl. 3, 4; Schedl 1938h: 462, 1963j: 481–482; Stebbing 1914: 601; Wichmann 1914c: 139; Yin, Huang, & Li 1984: 163.

pileatulus Schedl 1975f: 369. Holotype ♀; Upper Manki logging area, Bulolo, Morobe District [New Guinea]; Schedl Collection in NHMW, Wien. Distribution: New Guinea. References: (**tx**) Schedl 1975f: 369, 1979c: 193.

pilifer Eggers 1923a: 178. Syntypes 2 ♀; Deutsch Neu Guinea, Kaiserin Augustafluss: MNB, Berlin and Eggers Collection (USNM, Washington, or NHMW, Wien?). Distribution: New Guinea. References: (**tx**) Eggers 1923a: 178–179; Schedl 1936d: 11.

pilipunctatus Browne 1966: 251. Holotype ♀; Philippines, Palawan: Tagembung, Mantalingajan Range, 1150 m; UZMC, Copenhagen. Distribution: Philippine Islands (Palawan). References: (**tx**) Browne 1966: 251–252; Nobuchi 1983: 303.

pinguis Browne 1983a: 557. Holotype ♀; Lever Harbour (Solomon Islands) to Nagoya (Japan), imported; BMNH, London.

Distribution: Solomon Islands.

Hosts: Watergum log.

References: (ds) Ohno, Yoshioka, Yoneyama, & Nakazawa 1988a: 94. (tx) Browne 1983a: 557.

pinicola Eggers 1930d: 206. Holotype ♀; Burma (Monkung, Southern Shan States); FRI, Dehra Dun.

Distribution: Asia (Burma/Thailand).

Hosts: *Pinus khasya*, *P. massoniana*, *P. merkusii*.

References: (ds) Beaver 1990a: 280; Beeson 1930: 252, 1961: 308; Browne 1972: 20; Kleine 1934a: 175. (tx) Beeson 1930: 252; Eggers 1930d: 206.

pinivorus Browne 1980a: 374. Holotype ♀; Phan Rang (Vietnam) to Nagoya (Japan), imported; BMNH, London.

Distribution: Asia (Vietnam).

Hosts: *Pinus* sp.

References: (tx) Browne 1980a: 374.

planicollis Zimmermann 1868: 145. Holotype ♀; Pennsylvania [USA]; MCZ, Cambridge.

Distribution: North America (Illinois, Indiana, Missouri, North Carolina, Pennsylvania in USA).

References: (cn) Hubbard 1897b: 20. (hb) Beal & Massey 1945: 156–157; Chamberlin 1939: 450–451; Deyrup & Atkinson 1987a: 65; Hubbard 1897b: 20. (ds) Beal & Massey 1945: 156–157; Blatchley & Leng 1916: 617; Chamberlin 1939: 450–451; Deyrup & Atkinson 1987a: 65, 1987b: 63; Drooz 1985: 374; Gemminger & Harold 1872: 2686; Henshaw 1885: 148; Leng 1920: 342; Schwarz 1891: 79; Swaine 1909: 154; Weber & McPherson 1991: 49, 54; Wood, S. L. 1982b: 835. (tx) Beal & Massey 1945: 156–157; Blandford 1898b: 217; Blatchley & Leng 1916: 617; Bright 1968b: 1313; Chamberlin 1939: 450–451; Eichhoff 1878b: 391; Hopkins 1915b: 61, 1915c: 217; Hubbard 1897b: 20–22; LeConte 1868: 160, 1876: 360–361; Swaine 1909: 154; Wood, S. L. 1982b: 835; Zimmermann 1868: 145.

planipennis Schedl 1955b: 305. Holotype ♀; Fiji Inseln; Eggers Collection, in NHMW, Wien.

Distribution: Fiji Islands.

References: (tx) Browne 1974a: 65; Schedl 1955b: 285, 305, 1979c: 196.

platyurus Browne 1984f: 74. Holotype ♀; New Guinea; Morobe District, Mount Kaindi, 2350 m; BMNH, London.

Distribution: New Guinea.

Hosts: *Melicope* sp.

References: (tx) Browne 1984f: 74.

pleiades Samuelson 1981: 84. Holotype ♀; Hawaii: Maui, 1 (E): Kipahulu Val., Camp 2; BPBM, Honolulu.

Figures: Samuelson 1981: 63.

Distribution: Hawaiian Islands (Maui).

References: (tx) Samuelson 1981: 63, 84.

politus Hagedorn 1905a: 413. Lectotype ♀; Placers du Carsevenne, French Guiana; MNHN, Paris, designated by Wood 1982b: 815.

Distribution: North America (Costa Rica), South America (Cayenne/ Venezuela).

References: (cn) Felt 1930a: 247–248, 276. (hb) Felt 1930a: 247–248, 276. (ds) Blackwelder 1947: 780; Felt 1930a: 247–248, 276; Hagedorn 1910d: 109; Kleine 1913b: 162, 1914b: 339; Wood, S. L. 1982b: 815. (tx) Eggers 1941a: 103; Hagedorn 1905a: 413, 1910a: 155; Wood, S. L. 1982b: 815.

posticegranulatus Schedl 1938h: 462. Holotype ♀; Kongo; Schedl Collection in NHMW, Wien.

Distribution: Africa (Ivory Coast/ Zaire).

Hosts: *Canarium* sp.

References: (ds) Schedl 1964e: 69. (tx) Schedl 1938h: 462, 1962j: 211, 1979c: 198.

posticepilosus Schedl 1951i: 92. Holotype ♀; Pangil, Laguna, Philippine Islands; Schedl Collection in NHMW, Wien.

Figures: Nobuchi 1978a: pl. 3.

Distribution: Philippine Islands.

References: (ds) Choo, Woo, & Kim 1981: 201; Nobuchi 1978a: 28; Ohno, Yoneyama, & Nakazawa 1987a: 88; Schedl 1966b: 66, 1966g: 32. (tx) Nobuchi 1978a: pl. 3, 1983: 303; Schedl 1951i: 92, 1979c: 198.

posticoides Schedl 1948f: 281. Holotype ♀; Bolivia, Cochabamba; Schedl Collection in NHMW, Wien.

Distribution: South America (Bolivia).

References: (tx) Schedl 1948f: 281, 1979c: 198.

posticus Eichhoff 1869b: 281. Holotype ♀; Caracas, Venezuela; Hamburg Museum, lost.

Figures: Numberg 1959a: pl. 26, figs. 3–4; Pedrosa-Macedo & Schonherr 1985: 35.

Distribution: Antilles Islands (Guadeloupe/ Puerto Rico/ Trinidad), North America (Costa Rica/ Guatemala/ Chiapas, Veracruz in Mexico/ Panama), South America (Bolivia/ Brazil/ Colombia/ Guyana/ Peru/ Venezuela).

Hosts: *Erythrina costaricensis*, *Ficus* spp., *Spodias purpurea*, *Theobroma cacao*.

References: (cn) Estrada & Atkinson 1988: 207. (cc) Lyon 1960: 461. (hb) Atkinson & Equihua 1985b: 237; Norris et al. 1968: 852; Wood, S. L. 1982b: 816. (ds) Atkinson & Equihua 1985b: 237, 1986a: 421, 1988: 102; Blackwelder 1947: 780; Blandford 1898b: 196, 210; Bright 1985c: 174; Browne 1970: 542; Estrada & Atkinson 1988: 207; Ferrer 1942; Fleutiaux & Salle 1890: 457; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 109; Kleine 1913b: 162, 1914b: 337, 340, 354, 371–372; Numberg 1971: 58; Pedrosa-Macedo & Schonherr 1985: 35; Sampson 1921: 28; Schedl 1966f: 77, 1967d: 3, 1972g: 45, 1973d: 159, 1978c: 292; Wood, S. L. 1961c: 2, 1982b: 816. (tx) Blandford 1898b: 196, 210; Bright 1985c: 174; Eichhoff

1869b: 281, 1878b: 353; Hagedorn 1905a: 412, 1910a: 155; Nunberg 1959a: 434; Pedrosa-Macedo & Schonherr 1985: 35; Sampson 1921: 28; Schedl 1940a: 361, 1940c: 208, 1952b: 71, 1961a: 530, 1962p: 207; Wood, S. L. 1961c: 2, 1982b: 816.

novateutonicus Schedl 1954b: 47. Lectotype ♀; Brasilien: Parana, Rondon; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 172. Synonymy: Schedl 1962p: 207.

References: (**ds**) Schedl 1960a: 77. (**tx**) de Ruelle 1970: 115; Schedl 1954b: 47, 1962p: 207, 1979c: 172.

***pourriensis* Schedl** 1950b: 110. Lectotype ♀; Madagascar, Behara; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 198.

Distribution: Madagascar.

Hosts: *Alluaudia pourri*.

References: (**tx**) Schedl 1950b: 110, 1977b: 167, 1979c: 198.

***praestans* Wood** 1980b: 358. Holotype ♂; Cerro Punta, Chiriqui, Panama, 6000–8000 ft.; Wood Collection.

Distribution: North America (Panama).

References: (**ds**) Wood, S. L. 1982b: 822. (**tx**) Wood, S. L. 1980b: 358, 1982b: 822.

***praevis* Blandford** 1894d: 110. Holotype ♀; Japan; BMNH.

Distribution: Asia (Japan/ Korea).

Hosts: *Acer palmatum*, *Daphniphyllum macropodum*, *Morus* spp., *Prunus* sp.

References: (**ds**) Blandford 1894c: 579; Cho 1957, 1963; Choo 1983: 108; Choo & Woo 1985: 166; Hagedorn 1910d: 109; Kleine 1913b: 162, 1914b: 260, 1934a: 175; Ko 1969: 285; Murayama 1929b: 2, 1930b: 20, 1931a: 46, 1954b: 181; Shiraki 1952. (**tx**) Blandford 1894d: 110; Choo 1983: 108; Hagedorn 1904d, 1910a: 155; Murayama 1930b: 20–24, 31, 1931a: 41, 46, 1954b: 181; Nisima 1910a: 14; Schedl 1934f: 1646, 1959a: 499.

***princeps* Blandford** 1898b: 208. Lectotype ♀; Volcan Chiriqui, Chiriqui, Panama; BMNH, London, designated by Wood 1982b: 812.

Distribution: North America (Costa Rica/ Nicaragua/ Panama), South America (Colombia/ Ecuador).

References: (**ds**) Blackwelder 1947: 780; Hagedorn 1910d: 109; Kleine 1913b: 162, 1914b: 371; Wood, S. L. 1961c: 2, 1982b: 812. (**tx**) Blandford 1898b: 208; Eggers 1931c: 20, 1933g: 20; Hagedorn 1910a: 155; Wood, S. L. 1961c: 2, 1982b: 812.

***spathipennis ohausi* Hagedorn** 1912a: 345. Syn-types ♀; Pucay, Ecuador; Hamburg Museum, lost. Synonymy: Eggers 1933g: 20.

References: (**tx**) Eggers 1928c: 95, 1929e: 52, 1931c: 20, 1933g: 20; Hagedorn 1912a: 345–346.

***principalis* Eichhoff** 1878b: 357. Holotype ♀; Guineensi Africana; Stettin Museum, in Schedl Collection in NHMW, Wien.

Figures: Nunberg 1963b: pl. 23, figs. 3–5, 1967a: 338.

Distribution: Africa (Equatorial Guinea/ Guinea/ Tanzania/ Zaire), Madagascar.

Hosts: Many listed by Schedl 1962j: 260–263.

Notes: (3) Schedl 1957d: 15 (described male).

References: (**cc**) Schedl 1962j: 259. (**hb**) Schedl 1962j: 259. (**ds**) Hagedorn 1910d: 109; Kleine 1913b: 162, 1914b: 308, 315, 1934a: 175; Mayne & Donis 1962: 322; Nunberg 1961a: 331, 1967b: 324; Schedl 1962j: 259, 1962k: 1102, 1971e: 4; Wichmann 1954c: 522. (**tx**) Eggers 1920: 40, 1929e: 49, 1941d: 179; Eichhoff 1878b: 357; Hagedorn 1905: 413, 1910a: 155; Nunberg 1963b: 47, pl. 23, 1967b: 324, 338; Schaufuss 1897a: 212; Schedl 1950c: 205, 1950d: 3, 8, 1952e: 211, 1952g: 52–53, 1952i: 7, 1952j: 3, 1953g: 243, 1955d: 269, 1957d: 15, 1962j: 259, 1962k: 1102, 1979c: 199.

• ***priscus* Eggers** 1920: 44. Holotype ♀; fossil in Sansibarcopal, Zanzibar; Hamburg Museum, lost. Distribution: Africa (fossil in copal from Zanzibar in Tanzania).

Notes: (3) This is apparently also a living species.

References: (**ds**) Schedl 1962j: 233. (**tx**) Eggers 1920: 44–46; Schedl 1962j: 233.

***procer* Eichhoff** 1878b: 402. Holotype ♀; America meridionalis (Columbia); Hamburg Museum, lost.

Figures: Nunberg 1959a: pl. 26, figs. 5–6.

Distribution: North America (Guatemala), South America (Bolivia/ Brazil/ Cayenne/ Colombia/ Peru/ Suriname).

References: (**ds**) Beaver 1976a: 25; Blackwelder 1947: 780; Browne 1970: 542; Hagedorn 1903b: 546, 1910d: 109; Kleine 1913b, 1914b: 343; Schedl 1960a: 76, 1966f: 80, 1970d: 582, 1973d: 162, 1976a: 54; Steinhausen 1956: 48. (**tx**) Eggers 1931a: 21; Eichhoff 1878b: 402; Hagedorn 1903b: 546, 1910a: 156, 1910b; Nunberg 1959a: 435; Schedl 1948f: 361, 1952a: 461, 1952h: 70, 1958c: 2; Steinhausen 1956: 48.

***productus* Hagedorn** 1905a: 414. Lectotype ♀; Bas. Mahury, French Guiana; MNHN, Paris.

Distribution: North America (Costa Rica/ Panama), South America (Cayenne).

Hosts: *Rhizophora mangle*.

References: (**hb**) Wood, S. L. 1982b: 825. (**ds**) Blackwelder 1947: 780; Hagedorn 1910d: 109; Kleine 1913b: 162, 1914b: 339; Wood, S. L. 1982b: 825. (**tx**) Hagedorn 1905a: 414, 1910a: 156; Schedl 1950g: 897, 1952d: 362; Wood, S. L. 1982b: 825.

***prolatus* Wood** 1974a: 41. Holotype ♀; Tapanti, Cartago, Costa Rica, 1300 m; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Phoebe mexicana*.

References: (**hb**) Wood, S. L. 1982b: 824. (**ds**)

- Wood, S. L. 1982b: 824. (tx) Wood, S. L. 1974a: 41, 1982b: 824.
- prolixus** Schedl 1962j: 307. Holotype ♀; Uganda; Schedl Collection in NHMW, Wien.
Distribution: Africa (Uganda).
References: (tx) Schedl 1962j: 307, 1979c: 199.
- protii** Browne 1984d: 101. Holotype ♀; New Guinea: Stony L. A.; BMNH, London.
Distribution: New Guinea.
Hosts: *Protium* sp.
References: (tx) Browne 1984d: 101.
- pruinusulus** Browne in Beaver & Browne 1978: 611. Holotype ♀; Malaysia: Penang, Penang Hill, 500 m; BMNH, London.
Figures: Beaver & Browne 1978: 604
Distribution: Asia (Malaya).
References: (tx) Beaver & Browne 1978: 604; Browne in Beaver & Browne 1978: 611.
- pseudoambasius** Schedl 1954e: 82. Lectotype ♀; Bekwai, Gold Coast; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 200. Distribution: Africa (Ghana/ Ivory Coast).
Hosts: *Antiaris africana*, *Celtis* spp., *Triplochiton scleroxylon*.
References: (ds) Schedl 1962h: 60, 1962j: 403, 1962k: 1102, 1964e: 69, 1971e: 3; Thompson, G. H. 1963: 72. (tx) Schedl 1954e: 54, 82, 1962h: 60, 1962j: 403, 1962k: 1102, 1964e: 69, 1964k: 220, 1971e: 3, 1979c: 200; Thompson, G. H. 1963: 72.
- bobiriae** Schedl 1957e: 881. Holotype ♀; Gold Coast, Bobiri Forest Reserve; BMNH, London. Synonymy: Schedl 1964k: 220.
References: (ds) Schedl 1962j: 255. (tx) Schedl 1957e: 881, 1962j: 255, 1964k: 220, 1979c: 42.
- pseudocylindricus** Eggers 1927b: 402. Holotype ♀; Sudsumatra; USNM, Washington.
Distribution: Asia (Malaya), Indonesia (Borneo, Sumatra).
Hosts: *Artocarpus* spp., *Shorea* spp.
Notes: (3) Schedl 1960h: 110 (cited *artecylindricus* as a synonym).
References: (hb) Browne 1961: 156–157; Kalshoven 1959c: 158. (ds) Browne 1961c: 156, 1981a: 125; Kalshoven 1959c: 158; Schedl 1971c: 365. (tx) Anderson, W. H. & Anderson 1971: 26; Eggers 1927b: 402; Nobuchi 1983: 303; Schedl 1958b: 101, 1960h: 110.
- pseudomajor** Schedl 1951i: 93. Holotype ♀; Kolambungan, Miudanao, Philippine Islands; Schedl Collection in NHMW, Wien.
Figures: Nobuchi 1978a:pl. 3.
Distribution: Philippine Islands (Mindanao).
References: (ds) Choo & Woo 1983; Nobuchi 1978a: 30; Ohno, Yoneyama, & Nakagawa 1987a: 88; Schedl 1966b: 66, 1969a: 205. (tx) Nobuchi 1978a:pl. 3; Schedl 1935f: 270–271, 1951i: 93, 1979c: 201.
- pseudopilifer** Schedl 1936d: 11. Lectotype ♀; Malay Peninsula, Selangor: Kepont, Kanching, Batu Arang, Gangi, Kuala Lumpur, Pahang, Mentakab, Temerloh, and N. Borneo: Bettotan, near Sandakan; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 201.
Figures: Nobuchi 1978a:pl. 3.
Distribution: Asia (Malaya/ Vietnam), Indonesia (Borneo).
Hosts: *Dipterocarpus baudii*, *Dryobalanops aromatica*, *Gmelina arborea*, *Hopea ferrea*, *Shorea* spp., *Vatica* sp.
References: (cn) Browne 1950a, 1951; Mathur & Singh 1960b: 17, 1961a: 36; Yunus & Hua 1980: 230. (ec) Browne 1958b. (hb) Beaver & Browne 1978: 611; Browne 1935a, 1941a, 1958b, 1961c: 106; Kalshoven 1959c: 143. (ds) Beaver & Browne 1978: 611; Beeson 1961: 308; Browne 1935a, 1936a: 120–127, 1949b, 1950a: 167–168, 1961a: 305, 1968a: 133–134, 1986b: 333; Choo & Woo 1983; Kalshoven 1959c: 143; Mathur & Singh 1960b: 17, 1961: 36; Nobuchi 1978a: 28; Ohno, Yoneyama, & Nakazawa 1982b: 9, 1987a: 88; Schedl 1964c: 305, 1971c: 365; Yunus & Hua 1980: 230. (tx) Browne 1949b: 905; Nobuchi 1978a:pl. 3; Schedl 1936d: 11, 1939c: 330, 1942a: 171, 1951i: 92, 1953c: 301, 1979c: 201.
- pseudorudis** Schedl 1951i: 62. Holotype ♀; Java, Batoerraden, G. Slamet; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java).
References: (ds) Schedl 1961c: 70. (tx) Schedl 1951i: 62, 1979c: 202.
- pubescens** Zimmermann 1868: 145. Lectotype ♀; southern States [USA]; MCZ, Cambridge, designated by Wood 1973c: 187.
Figures: Bright 1976d: 13, Dillon & Dillon 1961: 813.
Distribution: Antilles Islands (Andros Island in Bahamas Islands), North America (Ontario in Canada/ Alabama, Arkansas, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, New Jersey, New York, North Carolina, Pennsylvania, South Carolina, Texas, Virginia, West Virginia in USA).
Hosts: *Pinus echinata*, *P. palustris*, *P.* spp.
Notes: (1) Eichhoff (1868a: 401) listed this species that was misidentified as "*Xyleborus pini* Say ??"; subsequent writers followed Eichhoff's example, but the name *pini* Eichhoff was never validated [Say's species is now *Ips pini*]. Schedl 1952k: 163–164 confirmed the synonymy but continued to use the Eichhoff nomen nudum; Schedl 1979c: 195 reported the [invalid] "holotype" as in his collection.
References: (ay) Hopkins 1894g: 279. (bv) Atkinson, Foltz, & Connor 1988; Meixner 1937: 1218; Phillips et al. 1988; Turnbow & Franklin 1980. (cn) Anonymous 1968i; Blandford 1898c: 4; Felt

- 1906: 396, 702, 720; Hart 1892a, 1893; Herrick 1935: 375; Hopkins 1894b: 296, 1895c: 148, 1897b: 133–135, 1899c: 445; Howard 1897: 85; Hubbard 1897b: 19; Kleine 1932a: 307; Packard 1890: 710–711; Riley 1892a: 402; Riley & Howard 1890: 167; Rutherford 1914b: 222; Smith, J. B. 1900: 363; Swaine 1918a: 126, 128; Titus & Pratt 1904: 57. (**cc**) Felt 1906: 396; Rumbold 1931c: 849; Steinhäus 1946: 404; Webb 1945: 64. (**hb**) Atkinson, Foltz, & Connor 1958; Beal & Massey 1945: 156–157; Chamberlin 1939: 452; Chittenden 1890; Deyrup & Atkinson 1987a: 65; Dillon & Dillon 1961: 814; Dyakowski 1911; Felt 1906: 396; Herrick 1935: 375; Hopkins 1894g, 1899c: 445, 1905c: 148; Hubbard 1897a: 427, 1897b: 19; Kleine 1932a: 307; Lengerken 1954: 312; Packard 1890: 710; Pierce, W. D. 1907: 291; Schwarz 1878: 468, 1888a: 80, 1890b: 87, 1891e: 78, 1894a: 16; Smith, E. F. 1896: 318; Swaine 1918a: 126, 128; Wenzel 1905: 124; Wood, S. L. 1982b: 838. (**ds**) Anonymous 1926c: 520, 1968i; Atkinson et al. 1991: 160; Beal & Massey 1945: 156–157; Bright 1976d: 138; Chamberlin 1939: 452; Chittenden 1890; Deyrup & Atkinson 1987a: 65; Drooz 1985: 374; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 109; Hamilton 1895: 346, 378; Henshaw 1885: 148; Hopkins 1893a: 137, 1893b: 211; Kleine 1913b: 162, 1914b: 395, 1932a: 307, 1934a: 175; Leng 1920: 342; Leonard 1928: 520; Schwarz 1878d: 468, 1886: 41, 1888a: 80, 1890: 87, 1891e: 78; Smith, J. B. 1900: 363, 1910: 402; Swaine 1909: 155; Turnbow & Franklin 1980; Wood, S. L. 1982b: 838. (**tx**) Beal & Massey 1945: 156–157; Blandford 1898e: 4; Bright 1976d: 133, 138; Chamberlin 1939: 452; Dillon & Dillon 1961: 801, 813–814; Eichhoff 1868a: 401, 1878b: 369–371, 1896: 609; Hagedorn 1910a: 156; Hubbard 1897b: 19–20; LeConte 1868: 160, 1876: 359–360, 1878a: 468; Meixner 1937: 1218; Schedl 1952k: 163–164; Schwarz 1886: 41–42, 1888a: 45; Swaine 1909: 155–156, 1918a: 126, 128; Wood, S. L. 1973c: 187, 1982b: 838; Zimmermann 1868: 145.
- propinquus* Eichhoff 1869b: 281. Lectotype ♀; Amerique boreali; IRSNB, Brussels, designated by Wood 1973c: 187. Synonymy: Wood 1973c: 187.
- References: (**cn**) Hubbard 1897b: 20. (**hb**) Hubbard 1897b: 20. (**ds**) Blackwelder 1947: 780; Blandford 1898b: 196; Ferrer 1942; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 109; Henshaw 1885: 148; Kleine 1913b: 162, 1914b: 354, 374; Leng 1920: 342; Swaine 1909: 155. (**tx**) Blandford 1898b: 196, 213–214; Eichhoff 1869b: 281, 1878b: 367; Hagedorn 1910a: 156; Hubbard 1897b: 20; Schedl 1940a: 363, 1952k: 164, 1963j: 481; Swaine 1909: 155; Wood, S. L. 1973c: 187.
- pumilus* Eggers 1923a: 209. Lectotype ♀; Sumatra; USNM, Washington, designated by Anderson & Anderson 1971: 26.
- Figures: Nobuchi 1978a: pl. 1.
- Distribution: Asia (Burma/ Xizang [Tibet] in China/ Andaman Islands, Assam in India/ Malaya/ Sri Lanka/ Vietnam), Indonesia (Borneo, Java, Sumatra), New Guinea, Philippine Islands, Solomon Islands.
- Hosts: *Artocarpus chaplasha*, *A. lakoocha*, *Ficus infectoria*, *Hymenodictyon excelsum*, *Shorea maxwelliana*, *Sterculia compenulata*, *S. villosa*, *Terminalia* spp.
- References: (**cn**) Mathur & Singh 1960b: 61, 1961a: 69, 1961b: 28; Roonwal 1954: 85. (**hb**) Beaver & Browne 1978: 612; Browne 1941, 1961c: 147. (**ds**) Beaver & Browne 1978: 612; Beeson 1941: 405–407, 1961: 308; Browne 1961c: 147, 1962c: 202, 1985b: 290; Kalshoven 1959: 152; Kleine 1934a: 175; Mathur & Singh 1960b: 61, 1961a: 69, 1961b: 28; Nobuchi 1978a: 18, 1980a; Ohno, Yoneyama, & Nakazawa 1987b: 94; Ohno, Yoshioka, et al. 1988a: 94, 1989: 63; Roonwal 1954: 85; Schedl 1959a: 509, 1962b: 186, 1966b: 67, 1969e: 156, 1971a: 281, 1971c: 365. (**tx**) Anderson, W. H. & Anderson 1971: 26; Beeson 1930: 252; Eggers 1923a: 207, 1925: 153, 1927b: 407, 1940d: 151; Nobuchi 1978a: pl. 1, 1983: 303; Nunberg 1962: 620; Schedl 1931c: 342, 1934d: 89–90, 1939e: 332, 1951i: 45, 1959a: 509; Wood, S. L. 1969c: 120.
- punctulatus* Kurenzov 1948a: 52. Holotype ♀; Russian Far East, Ussuri Distr.; Kurenzov Collection in Vladivostok.
- Distribution: Asia (E USSR).
- Hosts: *Quercus mongolica*.
- References: (**hb**) Kurenzov 1948a: 52; Stark 1952: 141. (**ds**) Krivolutskaia 1983; Stark 1952: 141. (**tx**) Kurenzov 1948a: 52; Schedl 1960h: 109; Stark 1952: 141.
- pusio* Eggers 1941a: 105. Holotype ♀; Guadeloupe (Trois Rivières); MNHN, Paris.
- Distribution: Antilles Islands (Guadeloupe), South America (Suriname).
- References: (**ds**) Bright 1985c: 174; Schedl 1963f: 60. (**tx**) Bright 1985c: 174; Eggers 1941a: 105; Schedl 1979c: 206.
- putputensis* Browne 1986a: 97. Holotype ♀; New Britain: Putput to Kishiwada (Japan), imported; BMNH, London.
- Distribution: New Britain Island.
- References: (**tx**) Browne 1986a: 97.
- quadratus* Blandford 1898b: 209. Lectotype ♀; Bugaba, Chiriqui, Panama; BMNH, London, designated by Wood 1982b: 817.
- Distribution: North America (Panama).
- References: (**ds**) Blackwelder 1947: 780; Hagedorn 1910d: 110; Kleine 1913b: 162; Wood, S. L. 1982b: 817. (**tx**) Blandford 1898b: 209; Hagedorn

- 1910a: 156; Schedl 1940a: 367; Wood, S. L. 1982b: 817.
- quadrisignatus** Schedl 1972m: 200. Holotype ♀; Borneo; BMNH, London.
Distribution: Indonesia (Borneo).
References: (tx) Schedl 1972m: 200.
- quadrispinosulus** Eggers 1923a: 189. Holotype ♀; Sumatra (Ajer Mantior); MCG, Genova.
Distribution: Asia (Burma/ India), Indonesia (Java, Sumatra), New Guinea.
Hosts: *Eupatorium tapos*, *Swietenia macrophylla*, *Theobroma cacao*.
References: (cn) Mathur & Singh 1961a: 79. (ec) Kalshoven 1960b. (hb) Browne 1935a, 1941, 1961c: 114; Kalshoven 1959c: 151, 1960a: 120. (ds) Beeson 1961: 308; Browne 1935a; Kalshoven 1959c: 151; Mathur & Singh 1961a: 79; Schedl 1936d: 4; Thomas 1960a, 1960b. (tx) Eggers 1923a: 189, 1925: 153; Schedl 1933e: 101, 1936h: 64, 1939f: 43, 1942a: 171, 1942d: 5, 1958k: 147–148.
- parvispinosus palembangensis** Schedl 1939f: 43. Lectotype ♀; Palembang, Sumatra; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 186. Synonymy: Schedl 1958k: 147.
References: (tx) Schedl 1939f: 43, 1951i: 79, 1958k: 147–148, 1979c: 186.
- parvispinosus** Schedl 1951i: 78. Syntypes ♀; Java: Mt. Gede; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1958k: 147.
References: (tx) Schedl 1951i: 78, 1958k: 147, 1979c: 186.
- quasimodo** Browne 1980e: 776. Holotype ♀; Malawi: Chintechi; MRCB, Tervuren.
Distribution: Africa (Malawi).
References: (tx) Browne 1980e: 776.
- quercicola** Eggers 1926b: 146. Lectotype ♀; Tokyo, Japan; USNM, Washington, designated by Anderson & Anderson 1971: 28.
Distribution: Asia (Japan).
Hosts: *Quercus* sp.
References: (ds) Murayama 1954b: 181. (tx) Anderson, W. H. & Anderson 1971: 28; Eggers 1926b: 146; Murayama 1954b: 181; Schedl 1934f: 1646.
- rapandus** Schedl 1942c: 186. Holotype ♀; New Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1942c: 186, 1979c: 210.
- repositus** Schedl 1942a: 197. Holotype ♀; Malaya, Kedah near Jitra, Catchment Area; BMNH, London.
Distribution: Asia (Malaya).
References: (ds) Browne 1961: 145. (tx) Schedl 1942a: 197.
- * **resinosus** Schedl 1939a: 469. Syntypes ♀; Copal from Ethiopian Area; Geological Department, BMNH, London.
Distribution: Africa (copal fossil from Ethiopia).
Notes: (3) This is also a living species.
References: (ds) Schedl 1962j: 264; Spahr 1981. (tx) Schedl 1939a: 469–470, 1962j: 264.
- reunionis** Schedl 1961e: 147. Holotype ♀; La Reunion, Madagascar; IRSM, Madagascar.
Distribution: Madagascar
References: (tx) Schedl 1961e: 147, 1977b: 162, 1979c: 211.
- rimulosus** Schedl 1959a: 508. Holotype ♀; Ceylon: Millawitiya Estate; Schedl Collection in NHMW, Wien.
Distribution: Asia (Sri Lanka).
References: (tx) Schedl 1959a: 508, 1979c: 211.
- robustipennis** Schedl 1954c: 159. Lectotype ♀; Borneo; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Borneo).
References: (ds) Browne 1965a: 189; Schedl 1965g: 24. (tx) Schedl 1954c: 156, 159, 1979c: 212.
- rothkirchi** Eggers 1920: 45. Lectotype ♀; Soppo, Kamerun, 800 m; USNM, Washington.
Distribution: Africa (Cameroon/ Ivory Coast/ Uganda/ Zaire/ Zambia).
Hosts: *Berlinia acuminata*, *Macrolobium macrophyllum*, *Ochthocosmus africanus*, *Pancovea laurentii*, *Pentaclethra macrophylla*, *Staudtia stipitata*, *Terminalia ivorensis*.
References: (hb) Loytyniemi, Beaver, & Loytyniemi 1984; Schedl 1962j: 234. (ds) Beaver & Loytyniemi 1985a: 75; Cachan 1957: 15; Schedl 1961d: 175–179, 1961m: 84, 1962h: 60, 1962j: 234, 1962k: 1102, 1964e: 69, 1979b: 416. (tx) Anderson, W. H. & Anderson 1971: 28; Eggers 1920: 45; Schedl 1951e: 38, 1954d: 872, 1957d: 88.
- rotundicollis** Browne 1984f: 73. Holotype ♀; New Guinea: Morobe District, Mount Kaindi, 2350 m; BMNH, London.
Distribution: New Guinea.
References: (tx) Browne 1984f: 73.
- ruandae** Schedl 1957d: 92. Holotype ♀; Congo Belge: Kivu, Mt. Kahuzi et Ruanda: Gishwati; MRCB, Tervuren.
Figures: Nunberg 1963b: pl. 24, figs. 7–9, pl. 25, figs. 1–4, Schedl 1962j: 299, 308.
Distribution: Africa (Ruanda/ Zaire).
Hosts: *Alchornea cordifolia*, *Bridelia bridelifolia*, *Hagenia abyssinica*, *Maesa* sp.
References: (hb) Schedl 1962j: 307. (ds) Schedl 1962j: 307. (tx) Nunberg 1963b: 49, pl. 24–25; Schedl 1957d: 92, 1962j: 299, 307–308, 1979c: 214.
- rufipes** Eggers 1933b: 31. Holotype ♀; Columbia; USNM, Washington.
Distribution: South America (Cayenne/ Colombia).
References: (ds) Blackwelder 1947: 780. (tx) Anderson, W. H. & Anderson 1971: 28; Eggers 1933b: 3, 31–32, 1941a: 103.

- rufobrunneus** Eggers 1929e: 49. Syntypes 2 ♀; Philippines: San Teodoro, Mindoro and Mt. Maquiling, Luzon; Eggers Collection (USNM, Washington, or NHMW, Wien?) and Baker Collection, automatic.
Distribution: Asia (Assam in India), Philippine Islands (Luzon, Mindoro).
Hosts: *Artocarpus lakoocha*, *Phoebe lanceolata*.
References: (ds) Schedl 1966b: 68. (tx) Eggers 1929e: 49, 1930d: 189, 1933b: 3; Nobuchi 1983: 303.
- similis* Eggers 1927c: 101. Syntypes 2 ♀; Philippines: San Teodoro, Mindoro and Mt. Maquiling, Luzon; Eggers Collection (USNM, Washington, or NHMW, Wien?) and Baker Collection, preoccupied by Ferrari 1867.
References: (tx) Beeson 1929: 234–235; Eggers 1927c: 101, 1929e: 49.
- rufobrunneus dihingensis** Eggers 1930d: 189. Holotype ♀; India: Assam (Upper Dihing Reserve, Lakhimpur); FRI, Dehra Dun.
References: (ds) Beeson 1961: 304. (tx) Eggers 1930d: 189.
- rufus** Schedl 1951i: 74. Lectotype ♀; Philippines, Luzon, Benguet; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 215.
Distribution: Philippine Islands (Luzon).
Hosts: *Quercus jordanae*.
References: (ds) Schedl 1966b: 68. (tx) Eggers 1930d: 180; Nobuchi 1983: 303; Schedl 1951i: 74, 1979c: 215.
- rugatus** Blackburn 1885: 192. Holotype ♀; Hawaii: Oahu; BMNH, London.
Figures: Samuelson 1981: 56.
Distribution: Hawaiian Islands (Kauai, Oahu).
Hosts: *Aleurites moluccana*, *Cordyline terminalis*, *Pleomele aurea*.
References: (ds) Beeson 1938b: 192; Hagedorn 1910d: 110; Kleine 1913b: 162, 1914b: 302; Samuelson 1981: 85. (tx) Blackburn 1885: 192; Hagedorn 1910a: 156; Perkins 1900: 178; Samuelson 1981: 56, 85; Sharp 1892: 192.
- nuuanus** Schedl 1941f: 114. Lectotype ♀; Oahu: Nuanu; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 173. Synonymy: Samuelson 1981: 84.
References: (ds) Swezey 1941: 122. (tx) Samuelson 1981: 84; Schedl 1941f: 114, 1979c: 173.
- rugosipennis** Schedl 1963f: 61. Holotype ♀; Suriname, Maripahenvel and Dirkshoop; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil/ Suriname).
Hosts: *Bauhinia* sp., *Liriosma singularis*, *Marcgravia* sp., *Plathymenia reticulata*.
References: (hb) Beaver 1976a: 25. (ds) Beaver 1976a: 25; Schedl 1978c: 291. (tx) Schedl 1963f: 61, 1979c: 216.
- rugosipennis incertus** Schedl 1963f: 63. Syntypes ♀; Suriname, Dirkshoop, Maripahenvel, and Poeroe Man Kemisa; Schedl Collection in NHMW, Wien.
Notes: (3) This is apparently an aberration, not a geographical race.
References: (ds) Schedl 1963f: 63, 1973d: 159.
- sakalava** Schedl 1953d: 97. Lectotype ♀; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 218.
Distribution: Madagascar.
Hosts: *Dalbergia pterocarpifolia*, *Dombeya* sp., *Eucalyptus robusta*, *Ficus soroceoides* var. *macrophlebia*, *Neodypsis baroni*, *Ocotea* cf. *racemosa*, *Panax* sp., *Pinus khasia*, *Ravensara* sp., *Symphonia* sp.
References: (hb) Schedl 1977b: 162. (ds) Schedl 1970d: 234, 1977b: 162. (tx) Schedl 1953d: 97, 1961e: 146, 1970d: 234, 1977b: 162, 1979c: 218.
- sartor** Schedl 1961e: 156. Holotype ♀; Madagascar, Perinet; IRSM, Madagascar.
Distribution: Madagascar.
Hosts: *Ocotea laevis*.
References: (tx) Schedl 1961e: 156, 1977b: 211, 1979c: 219.
- satoi** Schedl 1966g: 39. Holotype ♀; Keelung, Formosa to Tokyo (Japan), imported; PPST, Tokyo.
Figures: Nobuchi 1978a: pl. 4.
Distribution: Asia (Bhutan/ Taiwan).
Hosts: Camphor log.
References: (ds) Nobuchi 1967: 22, 1978a: 37; Schedl 1975c: 383. (tx) Nobuchi 1978a: pl. 4; Schedl 1966g: 39, 1979c: 219.
- sayi** (Hopkins) 1915b: 68 (*Anisandrus*). Holotype ♀; Morgantown, West Virginia [USA]; USNM, Washington.
Figures: Bright 1976d: 132, 203, 212.
Distribution: North America (Ontario, Quebec in Canada/ Connecticut, District of Columbia, Illinois, Indiana, Kentucky, Maine, Maryland, Michigan, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia in USA).
Hosts: *Acer* spp., *Betula* spp., *Carya* sp., *Castanea* sp., *Cornus* sp., *Fagus sylvatica*, *Fraxinus* spp., *Juglans* spp., *Kalmia latifolia*, *Lindera benzoin*, *Liriodendron tulipifera*, *Nyssa* sp., *Sassafras albidum*, *Tilia* sp.
References: (bv) Kirkendall 1984: 241; Roling & Kearby 1975b; Turnbow & Franklin 1980. (cn) Anderson, R. L. & Hoffard 1978; Blackman 1950; Friend 1943: 207–315; Wallace 1943a: 288. (ce) Anderson, R. L. & Hoffard 1978; Hazen & Roeper 1980; Roeper & French 1981. (hb) Beal & Massey 1945: 151–152; Blackman 1950; Chamberlin 1939: 446; Deyrup & Atkinson 1987a: 65; Hazen & Roeper 1980; Wood, S. L. 1982b: 795. (ds) Baker, W. L. 1972: 271; Beal & Massey 1945: 151–152; Blackman 1950; Blatchley & Leng 1916: 624; Bright 1968b: 1306, 1976d: 134; Chamberlin 1939: 446; Deyrup 1981b: 7; Deyrup & Atkinson

- 1987a: 65; Drooz 1985: 374; Kleine 1934a: 177; Knull 1932: 67; Leng 1920: 342; Turnbow & Franklin 1980; Weber, B. C., & McPherson 1991: 54; Wood, S. L. 1957c: 403, 1982b: 795. **(tx)** Beal & Massey 1945: 151–152; Benoit 1985: 284; Blatchley & Leng 1916: 624; Bright 1968b: 1306, 1976d: 132, 134, 203, 212; Chamberlin 1939: 446; Hopkins 1915b: 67–69; Wood, S. L. 1957c: 403, 1982b: 795.
- obesus minor* Swaine 1910b: 164. Lectotype ♀; Ste. Anne de Bellevue, Montreal Island, Quebec, Canada; CNCI, Ottawa, designated by Bright 1967b: 680, preoccupied by Stebbing 1909. Synonymy: Wood 1957c: 403.
- References: **(cn)** Doane et al. 1936; Friend 1943; Swaine 1918a: 125. **(hb)** Chamberlin 1939: 446; Doane et al. 1936; Drake 1921: 203–204; Swaine 1918a: 125. **(ds)** Anonymous 1926c: 520; Beaulne 1956; Beeson 1961: 307; Blatchley & Leng 1916: 624; Chamberlin 1939: 446; Kleine 1934a: 177; Leng 1920: 342; Leonard 1928: 520; Pechuman 1937: 14. **(tx)** Blatchley & Leng 1916: 624; Bright 1967b: 680; Chamberlin 1939: 446; Hopkins 1915b: 67–68; de Ruette 1970: 115; Schedl 1931c: 346, 1950g: 893; Swaine 1910b: 161–165, 1918a: 125; Wood, S. L. 1957c: 403.
- nearctus* Schedl 1950g: 893. Lectotype ♀; Ste. Anne de Bellevue, Montreal Island, Quebec, Canada; CNCI, Ottawa, designated by Bright 1967b: 680, automatic. Synonymy: Wood 1957c: 403.
- References: **(tx)** Bright 1967b: 680; Schedl 1950g: 893; Titus, Meikle, & Harrison 1985: 24; Wood, S. L. 1957c: 403.
- scaber* Schedl 1948f: 273. Lectotype ♀; Brazil, Nova Teutonia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 220.
- Distribution: Antilles Islands (Jamaica), South America (Brazil).
- References: **(cn)** Santoro 1966a. **(ds)** Bright 1985c: 174; Santoro 1957b: 26; Schedl 1966f: 90. **(tx)** Bright 1985c: 174; Schedl 1948f: 273, 1963d: 227, 1979c: 220.
- jamaicensis* Bright 1972d: 79. Holotype ♀; Hardwar Gap, 4000 feet, St. Andrew Parish, Jamaica; CNCI, Ottawa. Synonymy: Bright 1985c: 174.
- References: **(tx)** Bright 1972d: 79, 95, 1985c: 174; McNamara 1977: 200.
- scabratus* Schedl 1941f: 113. Lectotype ♂; Oahu: Pupukea; BPBM, Honolulu, designated by Samuelson 1981: 85.
- Figures: Samuelson 1981: 60.
- Distribution: Hawaiian Islands (Oahu).
- Hosts: *Xylosoma hawaiiense*.
- Notes: (1) Samuelson 1981: 85 (elevated this taxon to species rank from var. *oahuensis*; a lectoallotype was also designated).
- References: **(ds)** Swezey 1941: 122. **(tx)** Samuelson 1981: 60; Schedl 1941f: 113, 1979c: 174.
- scabricollis* (Schedl) 1975g: 220 (*Ozopemon*). Holotype ♀; Neu Guinea: Brown River, Central Distr.; Schedl Collection in NHMW, Wien.
- Distribution: New Guinea.
- Hosts: *Calamus* sp.
- References: **(tx)** Schedl 1975g: 220, 1979c: 220.
- schildi* Schedl 1935d: 94. Holotype ♀; Costa Rica, Turrialba; Schedl Collection in NHMW, Wien.
- Distribution: North America (Costa Rica), South America (Colombia).
- Hosts: *Rhedia madruno*.
- References: **(ds)** Blackwelder 1947: 780; Schedl 1975h: 353; Wood, S. L. 1982b: 819. **(tx)** Schedl 1935d: 94, 1951m: 123, 1979c: 221; Wood, S. L. 1982b: 819.
- schoutedeni* Eggers 1927a: 189. Holotype ♀; Belge Congo (Haut-Uele: Moto); MRCB, Tervuren.
- Figures: Nunberg 1963b: pl. 27, figs. 1–2.
- Distribution: Africa (Zaire).
- References: **(tx)** Eggers 1927a: 189; Nunberg 1963b: 54, pl. 27; Schedl 1962j: 169.
- scobinatus* Hagedorn 1910b: 8. Holotype ♀; Kamerun; MNB, Berlin.
- Figures: Nunberg 1963b: pl. 26, figs. 4–7.
- Distribution: Africa (Burundi/ Cameroon/ Equatorial Guinea/ Ghana/ Nigeria/ Uganda/ Zaire).
- Hosts: *Acalypha neptunica*, *Bosquicia angolensis*, *Combretodendron africanum*, *Ficus exasperata*, *Garcinia polyantha*, *Khaya ivorensis*, *Lebrunia sushaie*, *Maba laurentii*, *Pentaclethra macrophylla*, *Polyalthia suavestens*, *Sapium ellipticum*, *Terminalia superba*. Schedl 1962j: 265 lists additional hosts.
- References: **(ds)** Browne 1983a: 556; Hagedorn 1910d: 110; Kleine 1913b: 162; Mayne & Donis 1960: 104, 1962: 322; Roberts 1960b: 36, 1960e, 1960f, 1969: 133; Schedl 1962j: 264, 1964j: 42, 1971g: 193. **(tx)** Eggers 1940b: 108; Hagedorn 1910a: 156, 1910b: 8; Nunberg 1963b: 52, pl. 26; Schedl 1952i: 7, 1955f: 260, 1959q: 706, 1962j: 264.
- seiryorensis* Murayama 1930b: 21. Holotype ♀; Seiryori (Korea); Murayama Collection in USNM, Washington.
- Figures: Murayama 1930b: pl. 1, fig. 3.
- Distribution: Asia (Japan/ Korea).
- Hosts: *Alnus japonica*, *Quercus* spp., *Castanopsis cuspidata* var. *siboldii*.
- References: **(bv)** Choo, Woo, & Park 1988. **(cn)** Anonymous 1980g. **(cc)** Banno, Mikata, & Kodama 1983: 445; Tsuneda et al. 1986. **(hb)** Takahashi 1989: 403. **(ds)** Anonymous 1980g; Choo 1983: 110; Choo & Woo 1985: 166; Choo, Woo, & Park 1988; Kleine 1934a: 175; Ko 1969: 286; Murayama 1929b: 2, 1930b: 21, 1936a: 136, 1937b: 375, 1954b: 182; Nobuchi 1985c: 27. **(tx)** Choo 1983: 110; Murayama 1930b: 21–26, 1936a:

136, 1937b: 375, 1954b: 182, 1961b: 32; Schedl 1934f: 1646.

semiermis Schedl 1934f: 89. Lectotype ♀; Java, Mt. Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 224.

Distribution: Indonesia (Java).

References: (**hb**) Kalshoven 1959c: 152. (**ds**) Kalshoven 1959c: 152. (**tx**) Schedl 1934f: 89–90, 1979c: 224.

semipolitus Schedl 1951i: 70. Syntypes 4 ♀; Philippinen, Luzon, Prov. Isabella, Mount Moises, and Luzon, Benguet, Bagnio; Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands (Luzon).

Notes: (1) Schedl 1979c: 224 (citation of holotype invalid). [This is apparently a synonym of *Eucallacca xanthopus*, SLW.]

References: (**ds**) Schedl 1966b: 70. (**tx**) Nobuchi 1983: 303; Schedl 1951i: 70, 1979c: 224.

semipunctatus Eggers 1933b: 30. Holotype ♀; Franz. Guayana: St. Laurent du Maroni, Nouveau Chantier; MNHN, Paris.

Distribution: North America (Costa Rica), South America (Cayenne/ Colombia/ Venezuela).

Hosts: *Alexa imperatricia*, *Jacaranda copaia*.

References: (**hb**) Wood, S. L. 1982b: 819. (**ds**) Blackvelder 1947: 780; Wood, S. L. 1982b: 819. (**tx**) Eggers 1933b: 30–31; Wood, S. L. 1982b: 819.

semistriatus Schedl 1971c: 382. Holotype ♀; Selangor, Kepong, Malaya; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Shorea leprosula*.

References: (**tx**) Schedl 1971c: 382.

separandus Schedl 1971c: 383. Holotype ♀; Sarawak, Kuching; BMNH, London.

Distribution: Indonesia (Sarawak in Borneo).

Hosts: *Passing* sp.

References: (**tx**) Schedl 1971c: 383, 1979c: 225.

septentrionalis Nüßima 1909: 162. Syntypes 3 ♀; Tayoroma, Prov. Teshio, Mittlejapan: Yoshino, Prov. Yamato, Japan; Nobuchi Collection, Ibaraki.

Distribution: Asia (Japan).

Hosts: *Picea glehnii*, *P. jezoensis*, *Pinus densiflora*.

References: (**ds**) Kleine 1914b: 261, 1934a: 175; Kono 1938b: 65; Murayama 1948: 2, 1949a: 13, 1951c: 5, 1954b: 204; Nobuchi 1966d: 31. (**tx**) Hagedorn 1910a: 156; Murayama 1954b: 204; Nüßima 1909: 162, 1910a: 15; Nobuchi 1966d: 31; Schedl 1934f: 1646.

seriatus Blandford 1894d: 111. Syntypes 2 ♀; Nikko and Miyanooshita, Japan; BMNH, London.

Figures: Nobuchi 1966d: pl. 5.

Distribution: Asia (Shanxi, Sichuan in China/ Japan/ Korea/ Taiwan).

Hosts: *Acer rufinerve*, *Aesculus turbinata*, *Alnus* spp., *Betula* spp., *Carpinus tshonoskii*, *Castanopsis* sp., *Chamaecyparis* spp., *Cleyera japonica*, *Cryptomeria japonica*, *Fagus crenata*, *Kalopanax*

septenlobus, *Larix leptolepis*, *Mallotus japonicus*, *Pinus* spp., *Prunus* sp., *Quercus* spp., *Rhus ambigua*, *Schima* sp., *Thuja standishii*, *Tilia japonica*, *Tsuga* spp.

Notes: (3) A note in the Schedl Collection says that *daisetsuanus* Nobuchi is a synonym; this synonymy requires confirmation. Murayama 1955: 86 (described male).

References: (**ay**) Murayama & Kalshoven 1962. (**en**) Inouye 1955; Inouye & Yamaguchi 1955a: 235; Murayama 1954a: 13; Nitto 1953: 302. (**ec**) Inouye & Yamaguchi 1955a, 1955b; Inouye et al. 1955: 108; Nishiguchi 1959: 271. (**hb**) Inouye et al. 1955: 108; Murayama & Kalshoven 1962. (**ds**) Blandford 1894c; Browne 1966: 251, 1981b: 597; Choo 1983: 110; Choo & Woo 1985: 166; Choo, Woo, & Park 1983: 175; Hagedorn 1910d: 110; Kleine 1913b: 162, 1914b: 261, 1934a: 175; Murayama 1954a: 13, 1955: 86, 100, 103; Nobuchi 1966d: 31, 1967: 23; Yin, Huang, & Li 1984: 162. (**tx**) Blandford 1894d: 111; Choo 1983: 110; Hagedorn 1910a: 156; Murayama 1934c: 300, 1955: 86, 100, 103; Murayama & Kalshoven 1962: 249; Nüßima 1909: 158, 1910a: 14; Nobuchi 1966d: 31, pl. 5; Schedl 1934f: 1646, 1966g: 39; Yin, Huang, & Li 1984: 162.

setulosus Eggers 1940d: 149. Holotype ♀; Java (Buitenzorg); Kalshoven Collection, Eggers cotype in NHMW, Wien.

Distribution: Indonesia (Java, Sumatra).

Hosts: *Hevea brasiliensis*, *Myristica fragrans*, *Pithecolobium lobatum*.

Notes: (1) Schedl 1979c: 227 designated the Eggers cotype as lectotype with no explanation; he apparently overlooked the existence of a holotype. References: (**hb**) Kalshoven 1958a: 186. (**ds**) Kalshoven 1958a: 186, 1959c: 143. (**tx**) Eggers 1940d: 149–150; Kalshoven 1959b: 95, 1960d; Schedl 1961e: 145, 1979c: 227.

barbatogranosus Schedl 1942d: 37. Lectotype ♀; Sumatra, Solok; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 34. Synonymy: Kalshoven 1959b: 95.

References: (**tx**) Kalshoven 1959b: 95; Schedl 1942d: 37, 1979c: 34.

sextuberculatus Schedl 1952a: 461. Holotype ♀; Argentine Republic, Chaco de Santiago del Estero, Rio Dulce; Eggers Collection, in NHMW, Wien.

Distribution: South America (Argentina).

References: (**tx**) Schedl 1952a: 461, 1979c: 227.

shionomisakiensis Murayama 1951a: 3. Holotype ♀; Shionomisaki, Nishimuro County, Wakayama pref., Japan; Murayama Collection in USNM, Washington.

Figures: Murayama 1951a: pl. 1, figs. 14–16.

Distribution: Asia (Japan).

Hosts: *Castanea crenata*.

References: (**ds**) Murayama 1951a: 3, 1954b: 204;

- Nobuchi 1985c: 28. (tx) Murayama 1951a: 13, 1954b: 204.
- shiva Maiti & Saha** 1986: 140. Holotype ♀; 16 km Timber Extraction Centre, Little Andaman Island; Zoological Survey of India, Calcutta.
Distribution: Asia (Andaman Islands in India).
Hosts: *Pterocymbium tinctorum*.
References: (tx) Maiti & Saha 1986: 140.
- shoreae (Stebbing)** 1909: 28 (*Tomicus*). Syntypes 3 ♀; India: Assam, Rajahmukhowa Sal area, Kachugaon Forests, Goalpara; FRI, Dehra Dun.
Figures: Kumar & Chandra 1977: 46 (male).
Distribution: Asia (Burma/ Assam, Bengal, Uttar Pradesh in India).
Hosts: *Amoora wallichii*, *Dipterocarpus pilosus*, *Echinocarpus dasycarpus*, *Ehretia acuminata*, *Lannea grandis*, *Phoebe lanceolata*, *Schima wallichii*, *Shorea* spp., *Syzygium cumini*, *Terminalia* spp., *Vatica lanceaefolia*.
Notes: (3) Kumar & Chandra 1977: 36 (described male).
References: (cn) Mathur & Singh 1960b: 59, 1961a: 28, 1961b: 26; Roonwal 1954: 66; Roonwal, Chatterjee, & Thapa 1961b: 7. (hb) Stebbing 1909b: 28. (ds) Beeson 1930: 258–259, 1961: 309; Browne 1980: 373, 1981a: 126, 1983a: 555; Kleine 1913b: 128, 1914b: 277; Mathur & Singh 1960b: 59, 1961a: 28, 1961b: 26; Roonwal 1954: 66; Roonwal, Chatterjee, & Thapa 1961b: 7. (tx) Beeson 1930: 258–259; Eggers 1934b: 27; Hagedorn 1910a: 106; Kumar & Chandra 1977: 36, 46; Schedl 1954c: 156; Stebbing 1907: 39, 1909b: 28, 1914: 582.
- assamensis Stebbing** 1909b: 29 (*Tomicus*). Holotype ♀; Goalpara, Kachugaon Sal Forest tracts, Assam, India; FRI, Dehra Dun. Synonymy: Beeson 1930: 259.
References: (hb) Stebbing 1909b: 29. (ds) Beeson 1930: 259. (tx) Beeson 1930: 259; Eggers 1934b: 27; Stebbing 1909b: 29.
- siclus Schedl** 1936j: 26. Lectotype ♀; Malay Peninsula: Selangor, Sungai Buloh Forest Reserve; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 228.
Distribution: Asia (Malaya).
Hosts: *Dipterocarpus baudii*, *Dryobalanops oblongifolia*, *Shorea* spp.
Notes: (3) Schedl 1949b: 907 (described male).
References: (cn) Ishikura 1966; Yunus & Hua 1980: 230. (hb) Beaver & Browne 1978: 613; Browne 1936a, 1941, 1961c: 105. (ds) Beaver & Browne 1978b: 613; Beeson 1961: 309; Browne 1936a, 1961c: 105, 1980a: 371, 1983a: 555; Ishikura 1966; Ohno, Yoneyama, & Nakazawa 1982b: 9; Schedl 1936j: 26, 1949b: 907; Yunus & Hua 1980: 230. (tx) Schedl 1936j: 26, 1979c: 226.
- similis Ferrari** 1867: 23. Holotype ♀; Insula Keeling; NHMW, Wien, automatic.
Figures: Nobuchi 1978a: pl. 3, Nunberg 1959a: pl. 28, figs. 6–8, Samuelson 1981: 60, Schedl 1962j: 460, 1977b: 191, Wood 1960a: 66.
Distribution: Africa (Cameroon/ Kenya/ Mauritania/ Mauritius Island/ Seychelles Islands/ Tanzania), Asia (Bonin Islands/ Burma/ Guangdong in China/ Andaman Islands in India/ Jordan/ Malaya/ Nepal/ Sri Lanka/ Taiwan/ Thailand/ Tonkin Island in Vietnam, Vietnam), Admiralty Islands, Australia, Bismarck Islands, Christmas Island, Fiji Islands, Hawaiian Islands, Indonesia (Batoe, Borneo, Celebes, Java, Mentawai, Sumatra), Kiribati Islands, Madagascar, Micronesia (Caroline Islands, Guam, Kusaie, Marshall Islands, Palau Islands, Ponape, Truk), New Caledonia, New Guinea, Philippine Islands, Samoan Islands, Solomon Islands, Tahiti Islands.
Hosts: Many listed by Schedl 1962j: 467–471, 1979a: 159. *Alphitonia petrici*, *Elaenocarpus* sp., *Hevea brasiliensis*, *Shorea robusta*.
References: (bv) Gray, B. 1974c. (cn) Beaver 1988a: 66; Bigger 1982: 255; Browne 1938b, 1968: 717; Chatterjee et al. 1950; Kalshoven 1932: 246, 1939: 334, 1951: 851, 1954: 13; Gnanaharan, Sudheendrakumar, & Nair 1985; Hill, D. S. 1983: 545; Mahindapala & Subasinghe 1976; Mathur & Singh 1960a: 23, 1960b: 43, 1961a: 10, 1961b: 14; Miller, N. C. E. 1941: 10; Roonwal 1954: 36; Sivarami 1980: 58; Thomas, R. T. S. 1960a, 1960b; Wylie & Shanahan 1975; Yunus & Hua 1980: 230. (ec) Browne 1958b; Chatterjee & Chatterjee 1951; Halperin & Holzschuh 1984: 29; Mathew 1985. (hb) Beaver 1988a: 66, 1989a: 2, 4; Beaver & Browne 1978: 613; Beeson 1910: 221–223, 1923: 164; Browne 1936a: 124, 1941: 63, 1958b: 164–182, 1961c: 117–118, 1968: 717; Chatterjee & Chatterjee 1951; Chatterjee et al. 1950: 38; Fisher, Thompson, & Webb 1957: 7; Gray, B. 1974c; Halperin & Holzschuh 1984: 29; Hill, D. S. 1983: 545; Kalshoven 1932: 246–249, 1951: 851, 1954: 13, 1958a: 186–188, 1959a: 224, 1959c: 140, 1962a: 17, 19, 1964; Koningsberger & Zimmermann 1901: 1–125; Menzel 1923: 4; Miller, N. C. E. 1941; Schedl 1962j: 459; Speyer 1923: 19–21; Thomas 1960: 77; Wylie & Shanahan 1975. (ds) Allnand 1900: 21; Beaver 1988a: 66, 1989a: 2, 4, 1990b: 150; Beaver & Browne 1978: 613; Beeson 1929: 235, 247, 1933: 12, 1938b: 294, 1941: 402; 1961: 399; Bernard 1907: 50; Blasin, Roonwal, & Singh 1958: 36, 73; Boheman 1853: 88; Brimblecombe 1953: 35; Browne 1936a, 1938: 83–84, 1948: 892, 1949b, 1961a: 305, 1965a: 189, 1966: 253, 1968: 717; Chatterjee & Chatterjee 1951; Chatterjee et al. 1950; Choo, Woo, & Kim 1981: 201; Frappa 1933: 179; Gemminger & Harold 1892: 2686; Hagedorn 1910d: 100; Halperin & Holzschuh 1984: 29; Hill, D. S. 1983: 545; Kalshoven 1932: 246, 1958a: 186, 1959c: 140, 1964: 140; Kleine 1928: 307–313; Kolbe 1911: 41; Mathew 1982, 1987: 189; Mathur & Singh 1960a: 23, 1960b: 43, 1961a: 10, 1961b: 14; Nobuchi 1967: 23, 1978a:

- 35; Nobuchi & Ono 1973: 182; Nonveiller 1984: 42; Ohno, Yoneyama & Nakazawa 1982a: 4, 1982b: 8, 1987a: 88, 1987b: 94; Ohno, Yoshioka, et. al. 1988a: 94, 1989: 63; Roonwal 1954: 36, 38, 53, 72; Samuelson 1981: 86; Schedl 1936d: 5, 1936g: 528–530, 1936j: 21, 1937e: 543, 1938g: 427, 1942a: 171, 1942b: 149, 1951k: 139, 1959a: 505, 1961c: 70–71, 1962b: 185, 187, 1962i: 72, 75, 1962j: 459, 1964c: 306, 1964f: 618, 1965a: 340, 1965g: 22, 25, 1966b: 70, 1966g: 32, 1968e: 263, 1969c: 54, 1969d: 8, 1969e: 156, 1971a: 279, 1971c: 367, 1971d: 434, 1971f: 149, 1972a: 144, 1972j: 225, 1972k: 296, 1973b: 211, 1973c: 379, 1974c: 262, 1975a: 452, 1975e: 452, 1975j: 294, 1975k: 278, 1977c: 394, 1979a: 159, 1980b: 184; Thomas, R. T. S. 1960a, 1960b; Wichmann 1954: 503, 518, 521; Wood, S. L. 1960a: 51; Yin, Huang, & Li 1984: 164; Yunus & Hua 1980: 230. **(tx)** Beeson 1929: 235, 247; Blandford 1895a: 322; Browne 1949b; Eggers 1922a: 88, 1925: 154, 1926a: 300, 1927b: 407, 1929e: 48–49, 1930d: 189, 1933g; Eichhoff 1878b: 385–393, 484; Ferrari 1867a: 23–24, 74, 91; Hagedorn 1910a: 151; Kalshoven 1959a: 224–226; Lacordaire 1866: 383; Nobuchi 1978a: pl. 3, 1983: 304; Numberg 1959a: 438; Sampson 1914: 387–388, 1919: 110, 1921: 25; Samuelson 1981: 60; Schaufuss 1897a: 212–214; Schedl 1931c: 347, 1933e: 106, 1935j: 1, 1939e: 333, 1942a: 171, 1942b: 147, 1942c: 163, 1942d: 47, 1948g: 26, 1951i: 46, 50, 1952c: 62, 1953b: 124, 127, 1954a: 142–143, 1955b: 287, 1957d: 84, 1958b: 101, 1959a: 505, 1960h: 11, 1962j: 459–460, 1977b: 190–191, 1979e: 230; Strohmeier 1911b: 17; Wood, S. L. 1960a: 51–52, 66; Yin, Huang, & Li 1984: 164.
- ferrugineus* Boheman 1859: 88 (*Bostrichus*). Syntypes ♀; Insula Keeling; NHMW, Wien, preoccupied by Fabricius 1801. Synonymy: Schedl 1960b: 11.
References: **(tx)** Boheman 1859: 88; Eggers 1933b; Schedl 1960b: 11.
- parvulus* Eichhoff 1868: 152. Holotype ♀; Ceylon; Hamburg Museum, lost. Synonymy: Schedl 1959a: 505.
References: **(bv)** Beeson 1915: 8–11, 1917. **(cn)** Beeson 1938a; Betrem 1930b: 279; Kleine 1932a: 307; Lewton-Brain 1914: 1–45; Mathur & Singh 1961a: 8, 1961b: 14; Petch 1921: 233; Sharples 1918: 156; Stebbing 1914: 594; Swart 1917: 50; Yunus & Hua 1980: 230. **(cc)** Beeson 1923; Betrem 1930b: 379; Sharples 1918: 156, 1936: 384; Stebbing 1914: 594; Sweetman 1936: 39. **(hb)** Beeson 1916a, 1917, 1923, 1938a; Browne 1941, 1961c: 116–117; Kalshoven 1959c: 140; Kleine 1932a: 307; Sharples 1936: 384; Stebbing 1914: 594. **(ds)** Beeson 1916a: 221, 1923, 1938a: 294; Blandford 1895a; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 108; Kalshoven 1959c: 140; Kleine 1913b: 162, 1914b: 274, 280, 1932a: 307; Mathur & Singh 1961a: 8, 1961b: 14; Numberg & Chujo 1961: 358; Schedl 1936d: 4. **(tx)** Eggers 1925: 154, 1927a: 194, 1927b: 407, 1929e: 48; Eichhoff 1868c: 152, 1878b: 382; Hagedorn 1910a: 155; Schedl 1937e: 544, 1939e: 333, 1951k: 138, 1954a: 142, 1959a: 505, 1979c: 186; Stebbing 1914: 594.
- dilatatus* Eichhoff 1878b: 393. Syntypes ♀; Africae Insula St. Mauritius; Hamburg Museum, lost. Synonymy: Schedl 1959a: 505.
References: **(cn)** Mathur & Singh 1960b: 43, 1961a: 13. **(ds)** Alluaud 1900: 440; Hagedorn 1910d: 101; Kleine 1913b: 160; Kolbe 1910: 41; Sampson 1914: 387; Schedl 1936d: 3, 1979c: 80. **(tx)** Eggers 1927b: 407; Eichhoff 1878b: 393; Hagedorn 1910a: 153; Sampson 1914: 387; Schaufuss 1897a: 212; Schedl 1931c: 346, 1936d: 3, 1937e: 543, 1959a: 505, 1962j: 459, 1979c: 80.
- submarginatus* Blandford 1896b: 223. Syntypes ♀; India, Belgaum, Ceylon, Celebes, New Guinea, Dorey; BMNH, London. Synonymy: Eggers 1929e: 48.
References: **(bv)** Beeson 1917. **(cn)** Beeson 1915: 8–11, 1916: 1–5; Garthwaite 1940: 94–106; Green 1916: 608–636; MacKenzie 1922: 1–14. **(hb)** Beeson 1916a: 221, 1917, 1929. **(ds)** Beeson 1916a, 1929, 1930: 260–261, 1933: 12, 1935: 294, 1961: 309; Kleine 1913b: 163, 1934a: 175; Murayama 1934: 289, 1936b: 115; Sampson 1919: 109–110. **(tx)** Beeson 1929: 247, 1930: 260–261; Blandford 1896b: 223; Eggers 1922a: 88, 1925: 154, 1926a: 300, 1927b: 407, 1929e: 48; Sampson 1919: 109–110; Schedl 1931c: 347, 1939f: 49, 1951k: 138, 1958b: 103, 1959a: 505, 1962j: 459.
- bucco* Schaufuss 1897a: 212. Syntypes ♀; Sechellen, La Digue; Hamburg Museum, lost. Synonymy: Schedl 1959a: 505.
References: **(ds)** Alluaud 1900: 440; Hagedorn 1910d: 99; Kleine 1913b: 160; Kolbe 1910: 41; Sampson 1914: 388. **(tx)** Anderson, W. H. & Anderson 1971: 8; Beeson 1929: 247; Hagedorn 1910a: 152; Sampson 1914: 388; Schaufuss 1897a: 212; Schedl 1959a: 505, 1962j: 459.
- capito* Schaufuss 1897a: 215. Syntypes ♀; Philippinen; those in Hamburg Museum lost, 1 in USNM, Washington, 1 in Schedl Collection in NHMW, Wien. Synonymy: Schedl 1959a: 505.
References: **(ds)** Beeson 1938: 294; Hagedorn 1910c: 99; Kleine 1913b: 160, 1914b: 290. **(tx)** Anderson, W. H. & Anderson 1971: 9; Eggers 1929c: 46; Hagedorn 1910a: 152; Schaufuss 1897a: 215; Schedl 1959a: 505, 1962j: 459; Strohmeier 1911b: 17.
- novaguineanus* Schedl 1936g: 530. Holotype ♀; New Guinea; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 177.
References: **(ds)** Schedl 1936g: 530, 1972b: 266,

1980b: 184. (**tx**) Schedl 1936g: 530, 1958i: 214, 1965g: 25, 1979c: 171.

dilatatus Schedl 1953b: 127. Lectotype ♀; Saigon; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 80. Synonymy: Wood 1989: 177.

References: (**ds**) Gardner 1957a; Schedl 1962b: 185. (**tx**) Schedl 1953b: 127, 1955i: 212, 1979c: 80.

similimus Perkins 1900: 176. Lectotype ♀; Hawaii, above Hilo, 1800 ft.; BMNH, London. Figures: Samuelson 1981: 60.

Distribution: Hawaiian Islands (Hawaii).

Hosts: *Metrosideros collina polymorpha*.

References: (**ds**) Beeson 1938b: 294; Hagedorn 1910d: 111; Kleine 1913b: 163, 1914b: 303; Samuelson 1981: 86. (**tx**) Hagedorn 1910a: 156; Perkins 1900: 176; Samuelson 1981: 60, 86.

simulatus Bright 1972d: 80. Holotype ♀; Hardwar Gap, St. Andrew Parish, Jamaica, 4000'; CNCI, Ottawa.

Figures: Bright 1972d: 95.

Distribution: Antilles Islands (Jamaica/ Puerto Rico).

References: (**ds**) Bright 1981c: 157, 1985c: 174. (**tx**) Bright 1972d: 80, 95, 1985c: 174; McNamara 1977: 200.

sinensis Eggers 1941b: 224. Holotype ♀; China: Fukien Prov. (Kuatun, 2300 m); Alexander Konig Museum, Bonn.

Distribution: Asia (Fujian in China).

References: (**tx**) Eggers 1941b: 224–225; Schedl 1955h: 45.

solutus Schedl 1962j: 516. Holotype ♀; Congo Belge; Yangambi; Schedl Collection in NHMW, Wien.

Distribution: Africa (Zaire).

Hosts: *Sorindeia lemairei*, *Vernonia conferta*.

References: (**tx**) Schedl 1962j: 516, 1979c: 232.

sparsipilosus Eggers 1933b: 34. Holotype ♀; Franz. Guayana (Nouveau Chantier); MNHN, Paris.

Distribution: North America (Costa Rica/ Panama), South America (Cayenne/ Colombia).

Hosts: *Ficus* sp., *Virola warburgii*, etc.

References: (**ds**) Blackwelder 1947: 780; Wood, S. L. 1982b: 824. (**tx**) Eggers 1933b: 34; Schedl 1979c: 232; Wood, S. L. 1972e: 199, 1982b: 824.

inconueniens Schedl 1948h: 577. Holotype ♀; Costa Rica, Hamburgfarm, Ebene Limon, Reventazon; Schedl Collection in NHMW, Wien. Synonymy: Wood 1972e: 199.

References: (**tx**) Schedl 1948h: 577, 1979c: 123; Wood, S. L. 1972e: 199.

spathipennis Eichhoff 1868: 145. Syntypes ♀; Peru, Brazil; Hamburg Museum, lost.

Figures: Nunberg 1959a: pl. 18, fig. 7, pl. 20, figs. 4–6.

Distribution: North America (Costa Rica/ Guate-

mala/ Nicaragua/ Panama), South America (Bolivia/ Brazil/ Cayenne/ Colombia/ Ecuador/ Guyana/ Peru/ Suriname/ Venezuela).

Hosts: *Bursera simarubra*, *Copaifera* sp., *Cratylia floribunda*, palm log.

References: (**cn**) Hagedorn 1913a; Herfs 1950: 3; Kleine 1932a: 307. (**ec**) Neger 1911a: 52. (**hb**) Beaver 1976a: 26; Hagedorn 1913a; Kalshoven 1963: 237; Kleine 1932a: 307; Wood, S. L. 1982b: 810. (**ds**) Atkinson & Equihua 1988: 102; Beaver 1976a: 26; Blackwelder 1947: 780; Blandford 1898b; Gemminger & Harold 1872: 2686; Hagedorn 1903b: 546, 1910d: 111, 1912a: 342, 1913a; Kalshoven 1963; Kleine 1913b: 163, 1914b: 337, 343, 371, 1932a: 307, 1934a: 175; Wood, S. L. 1982b: 810. (**tx**) Blandford 1898b; Eggers 1928c: 94–95, 1929e: 52, 1933b: 2, 24–25, 1939e; Eichhoff 1868c: 144–145, 1878b: 347, 1880a: 189; Hagedorn 1903b: 546, 1910a: 156, 1910b, 1912a; Nunberg 1959a: 439; Schedl 1940c: 208, 1948f: 261; Wood, S. L. 1972e: 199, 1982b: 810.

coronatus Eichhoff 1878b: 348. Holotype ♂; Brasilia interior; IRSNB, Brussels. Synonymy: Wood 1972c: 199.

References: (**tx**) Eichhoff 1878b: 348; Hopkins 1915b: 69; Wood, S. L. 1972c: 199.

burgdorfi Hopkins 1915b: 59. Holotype ♀; Costa Rica; USNM, Washington. Synonymy: Wood 1972c: 199.

References: (**ds**) Browne 1970: 542; Hopkins 1915b: 59; Wood, S. L. 1972c: 199.

curtus Eggers 1928c: 94. Lectotype ♀; Ecuador (Cachabe); USNM, Washington, designated by Anderson & Anderson 1971: 11. Synonymy: Wood 1972c: 199.

References: (**ds**) Blackwelder 1947: 779; Schedl 1960a: 77, 1966f: 80, 1970e: 91, 1973d: 157, 1976a: 54. (**tx**) Anderson, W. H. & Anderson 1971: 11; Eggers 1928c: 94–95, 1929e, 1933b: 24–25; Nunberg 1959a: 421; Schedl 1935d: 94, 1940c: 207, 1952h: 70, 1960a: 77, 1960b: 12, 1966f: 80, 1970e: 91, 1973d: 157, 1976a: 54, 1979c: 72; Wood, S. L. 1972c: 199.

femoratus Eggers 1928c: 95. Lectotype ♀; Brasil, Bahia; MNB, Berlin, designated by Wood 1982b: 810. Synonymy: Schedl 1960g: 12, Wood 1972c: 199.

References: (**ds**) Blackwelder 1947; Schedl 1966f: 79. (**tx**) Eggers 1928c: 95, 1929e, 1933b: 24–26; Nunberg 1959a: 425; Schedl 1948f: 278, 1960g: 12, 1979c: 95; Wood, S. L. 1972c: 199, 1982b: 810.

sphenos Sampson 1912: 247. Holotype ♀; Uganda; BMNH, London.

Distribution: Africa (Ghana/ Uganda/ Zaire).

Hosts: *Acrilodocarpus fraxinifolius*, *Albizia* spp., *Lovoa trichilioides*, *Pentadesma lebrunii*.

References: (**hb**) Schedl 1962j: 517. (**ds**) Kleine 1913b: 163, 1914b: 324; Schedl 1962j: 517. (**tx**)

Sampson 1912: 247–248; Schedl 1955i: 219, 1957a: 107, 1962j: 517, 1970a: 219.

perdilgens diligens Schedl 1954e: 79. Lectotype ♀; Gold Coast, Mpraeso; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 189.

Notes: (1) Schedl 1954e: 79 treated this as a subspecies of *perdilgens* and in 1957d: 107 as a subspecies of *sphenos*.

References: (ds) Thompson, C. H. 1963: 72. (tx) Schedl 1954e: 54, 64, 79, 1957d: 107, 1979c: 189.

spicatus Browne 1986c: 667. Holotype ♀; Borneo: Marudu Bay (Sabah) to Nagoya (Japan), imported; BMNH, London.

Distribution: Indonesia (Borneo).

Hosts: *Dipterocarpus* sp. log.

References: (tx) Browne 1986c: 667.

spicatus Browne 1986a: 95. Holotype ♀; Port Barton (Palawan, Philippines) to Nagoya (Japan), imported; BMNH, London.

Distribution: Philippine Islands (Palawan).

Hosts: *Dipterocarpus* sp. log.

References: (tx) Browne 1986a: 95.

spinatus Eggers 1923a: 203. Holotype ♀; Pangherang-Pisang auf Sumatra; MCG, Genova.

Distribution: Asia (Malaya), Indonesia (Sumatra).

References: (hb) Browne 1961c: 157. (ds) Browne 1961c: 157, 1980a: 371; Eggers 1923a: 203; Schedl 1953c: 290.

spincornis Schedl 1975f: 370. Holotype ♀; Biniguni, Gwariu River, 150 m, New Guinea; AMNH, New York.

Distribution: New Guinea.

References: (ds) Browne 1983a: 555. (tx) Schedl 1975f: 370.

spinulosus Blandford 1898b: 201. Lectotype ♀; San Geronimo, Guatemala; BMNH, London.

Figures: Bright 1972d: 95, Nunberg 1959a: pl. 21, figs. 3–4, Pedrosa-Macedo & Schonherr 1985: 41, Samuelson 1981: 53.

Distribution: Antilles Islands (Grenada/ Guadeloupe/ Dominican Republic, Haiti in Hispanola/ Jamaica/ Trinidad), North America (Costa Rica/ Guatemala/ Honduras/ Jalisco, Nayarit, Veracruz in Mexico/ Panama), South America (Argentina/ Brazil/ Colombia/ Galapagos Islands/ Venezuela), introduced in Hawaiian Islands.

Hosts: *Acacia koa*, *A. polyphylla*, *Albizia* sp., *Bursera simarubra*, *Cecropis* sp., *Citrus* sp., *Gleditsia* sp., *Mangifera indica*, *Nicotiana tabaccum*, *Ochroma* sp., *Pinus patula*, *Qualea ingens*, *Rudgea* cf. *amazonica*, *Samanga saman*, *Terminalis* sp.

References: (cn) Equihua & Martinez 1988. (ec) Wichmann 1955a: 107. (hb) Atkinson & Equihua 1985b: 237; Beaver 1979a: 26; Wood, S. L. 1982b: 799. (ds) Atkinson & Equihua 1985b: 237, 1986a: 421, 1988: 102; Beaver 1976a: 26; Berti-Filho

1979: 42; Blackwelder 1947: 780; Bright 1972d: 78, 1982b: 165, 1985c: 174; Estrada & Atkinson 1988: 207; Hagedorn 1910d: 111; Kleine 1913b: 163, 1914b: 343, 371, 379; Nunberg 1963c: 98; Pedrosa-Macedo & Schonherr 1985: 41; Samuelson 1981: 88; Schedl 1966g: 90, 1967d: 3, 1971f: 149, 1972g: 45, 1973d: 159, 1976a: 55; Swezey 1941: 121; Wichmann 1955a: 107; Wood, S. L. 1977a: 73, 1982b: 799. (tx) Blandford 1898b: 201; Bright 1972d: 78, 95, 1985c: 174; Eggers 1931c: 20, 1933g: 20, 1934a: 82–83, 1940a: 108, 1940c: 238; Hagedorn 1910a: 156; Pedrosa-Macedo & Schonherr 1985: 41; Samuelson 1981: 53, 88; Schedl 1934g: 178, 1935d: 93–94, 1941f: 112, 1950f: 36, 1950i: 147, 1951h: 286, 1957a: 194; Wood, S. L. 1966b: 32, 1979b: 137, 1982b: 799.

fusciseriatus Eggers 1934a: 82. Holotype ♀; Costa Rica (La Caja: 8 km W San Jose); MNB, Berlin. Synonymy: Wood 1979b: 137.

References: (ds) Blackwelder 1947: 779. (tx) Eggers 1933g: 20, 1934a: 82, 1940c: 235; Nunberg 1959a: 425; Schedl 1935d: 93; Wood, S. L. 1979b: 137.

spinulosus Schedl 1934g: 178. Holotype ♀; Honolulu, Hawaiian Islands; F. C. Hadden Collection. Synonymy: Wood 1966b: 32.

References: (ds) Beeson 1938b: 294. (tx) Eggers 1933g: 20; Schedl 1934g: 178, 1941f: 112, 1950f: 36, 1950i: 147, 1979c: 235; Wood, S. L. 1966b: 32.

artespinnulosus Schedl 1935d: 93. Lectotype ♀; Costa Rica, Hamburgfarm, Reventazon, Ebene Limon; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 27. Synonymy: Wood 1979b: 137.

References: (ds) Blackwelder 1947: 779; Schedl 1974e: 51. (tx) Schedl 1935d: 93, 1979c: 27; Wood, S. L. 1979b: 137.

squamulatus Eichhoff 1869b: 282. Holotype ♀; Brasil; IRSNB, Brussels.

Figures: Nunberg 1971: 63, Pedrosa-Macedo & Schonherr 1985: 42, Terra 1987: 24.

Distribution: North America (Costa Rica/ El Salvador/ Guatemala/ Chiapas in Mexico), South America (Brazil/ Colombia/ Guyana/ Venezuela). Hosts: *Conostegia oerstediana*, *Eucalyptus paniculata*, *Inga* sp., *Theobroma cacao*.

References: (hb) Wood, S. L. 1982b: 798. (ds) Blackwelder 1947: 780; Blandford 1898b: 195, 203; Gemminger & Harold 1872: 2656; Hagedorn 1910d: 111; Kleine 1913b: 163, 1914b: 337, 371; Pedrosa-Macedo & Schonherr 1985: 42; Schedl 1966f: 90, 1967d: 3, 1971f: 149, 1972g: 45, 1976a: 55, 1977e: 43; Wood, S. L. 1982b: 798. (tx) Blandford 1898b: 195, 203; Eichhoff 1869b: 282, 1878b: 339; Hagedorn 1910a: 157; Pedrosa-Macedo & Schonherr 1985: 42; Schedl 1935d: 93, 1963d: 227, 1963f: 60; Schonherr & Pedrosa-Macedo 1981:

- 57, 1985: 42; Terra 1987: 24; Wood, S. L. 1982b: 798.
- squamulatus niger* Nunberg 1971: 61. Holotype ♀; Ilheus, Bahia, Brasil; MZUSP, Sao Paulo, preoccupied by Sampson 1912.
Notes: (3) This is an apparent aberration, not a geographical race.
References: (ds) Terra 1987: 22. (tx) Nunberg 1971: 63; Sampson 1912: 247.
- starki** Nunberg 1956d: 209. Holotype ♀; Ussuri Distr., USSR; Kurenzov Collection in Wladivostok, automatic.
Distribution: Asia (Ussuri in USSR).
Hosts: *Quercus mongolica*.
References: (tx) Nunberg 1956d: 209.
- quercus* Kurenzov 1948a: 51. Holotype ♀; Ussuri Distr., USSR; Kurenzov Collection in Wladivostok, preoccupied by Hopkins 1915.
References: (hb) Kurenzov 1948a: 51; Stark 1952: 440. (ds) Stark 1952: 440. (tx) Kurenzov 1948a: 51; Nunberg 1956d: 209; Stark 1952: 440.
- striatulus** Browne 1950c: 487. Holotype ♀; Vanimo (New Guinea) to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
References: (ds) Ohno, Yoshioka, et al. 1989: 64. (tx) Browne 1980c: 487; Ohno et al. 1980c: 487.
- strombosiopsis** Schedl 1957d: 91. Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren.
Figures: Nunberg 1963b: pl. 29, figs. 1–2, Schedl 1962j: 297.
Distribution: Africa (Zaire).
Hosts: *Strombosiopsis tetrandra*.
References: (hb) Schedl 1962j: 297. (ds) Schedl 1962j: 297. (tx) Browne 1965a: 202; Nunberg 1963b: 57, pl. 29; Schedl 1957d: 84, 91, 1958k: 145, 1962j: 297, 1979c: 239.
- suau** Schedl 1973e: 75. Holotype ♀; Biniguni, Gwariu River, M. Bay Dist. [New Guinea], 150 m; AMNH, New York.
Distribution: New Guinea
References: (tx) Schedl 1973e: 75.
- subasperulus** Eggers 1935c: 310. Holotype ♀; Kamerun: Victoria; USNM, Washington.
Distribution: Africa (Angola/ Cameroon/ Sierra Leone/ Uganda).
Hosts: *Bauhinia tomentosa*, *Terminalia superba*, *Theobroma cacao*.
References: (cn) Amaro & Soares 1957: 100, 132, 141. (ds) Ferreira 1965: 1125; Nonveiller 1984: 42; Nunberg 1960a: 295; Schedl 1962j: 403, 1962k: 1104. (tx) Anderson, W. H. & Anderson 1971: 32; Eggers 1935c: 310–311, 1940c: 237–238, 1941a: 105.
- subcarinulatus** Eggers 1932d: 302. Holotype ♀; Congostaat (Sankuru: Sangaie); MRCB, Tervuren.
Figures: Nunberg 1963b: pl. 28, figs. 6–7.
Distribution: Africa (Angola/ Zaire).
References: (ds) Ferreira 1965: 1125; Schedl 1959p: 21. (tx) Eggers 1932d: 302–303; Nunberg 1963b: 58, pl. 28; Schedl 1959p: 21, 1962j: 404, 1979c: 240.
- subcostatus** Eichhoff 1869a: 281. Holotype ♀; Siam; IRSNB, Brussels.
Figures: Nobuchi 1978a: pl. 2.
Distribution: Asia (Malaya/ Thailand), Australia, Indonesia (Borneo, Sumatra), Philippine Islands.
References: (hb) Browne 1941. (ds) Browne 1961c: 140; Choo, Woo, & Kim 1981: 201; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 111; Kleine 1913b: 168; Nobuchi 1978a: 25; Ohno et al. 1987: 88; Schedl 1966b: 52, 1966g: 35, 1969a: 205, 1972a: 145. (tx) Eggers 1930d; Eichhoff 1869a: 280–281, 1878b: 345; Hagedorn 1910a: 157, 1910b; Nobuchi 1978a: pl. 2, 1983: 304; Ohno, Yoneyama, & Nakazawa 1982b: 9; Schedl 1936d: 5, 1937e: 544, 1960h: 108.
- fleutiauxi** Blandford 1896a: 21. Syntypes 3 ♀; Indo-China: Mytho; BMNH, London. Synonymy: Schedl 1960h: 108.
References: (cn) Ishikura 1966. (hb) Kalshoven 1959c: 162. (ds) Hagedorn 1910d: 104; Ishikura 1966; Kalshoven 1959c: 162; Kleine 1913b: 168, 1914b; Murayama 1957a: 37. (tx) Blandford 1896a: 21; Hagedorn 1910a: 154, 1910b; Schedl 1952k: 162, 1953b: 124, 1958i: 215, 1960h: 108.
- webbi** Hopkins 1915b: 59. Holotype ♀; Calapan, Philippine Islands; USNM, Washington. Synonymy: Schedl 1952j: 162.
References: (tx) Hopkins 1915b: 59; Schedl 1952k: 162.
- subcostatus dearnatus** Eggers 1923a: 205. Holotype ♀; Mungei Mesh (?) auf Sumatra; Eggers Collection, in NHMW, Wien. Synonymy: Wood 1989: 177.
References: (tx) Eggers 1923a: 205; Schedl 1979c: 240; Wood, S. L. 1989: 177.
- subcrenulatus** Eggers 1932d: 301. Holotype ♀; Congostaat (Madimba); USNM, Washington.
Distribution: Africa (Zaire).
References: (tx) Anderson, W. H. & Anderson 1971: 32; Eggers 1932d: 301–302; Schedl 1962j: 298.
- subdentatulus** Browne 1986a: 97. Holotype, sex?; New Guinea: Fak fak to Nagoya (Japan), imported; BMNH, London.
Distribution: New Guinea.
Hosts: Nyatoh log (Sapotaceae).
References: (tx) Browne 1986a: 97.
- subdentatus** Browne 1974b: 539. Holotype ♀; Malaya: Kepong, Forest Research Institute Insectary; BMNH, London.
Distribution: Asia (Malaya).
References: (tx) Browne 1974b: 539.

subdolosus Schedl 1942d: 44. Lectotype ♀; Java; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 241.

Distribution: Asia (Malaya), Indonesia (Borneo, Java, Sumatra).

References: (hb) Browne 1961c: 152; Kalshoven 1959c: 152. (ds) Browne 1961c: 152, 1981a: 125; Kalshoven 1959c: 152; Ohno et al. 1987: 88. (tx) Nobuchi 1983: 304; Schedl 1942d: 44, 1958k: 148, 1979c: 241.

subductus Schedl 1976a: 78. Holotype ♀; V. Vera, Matto Grosso, Lon. 55 degrees 36', Lat. 12 degrees 46', Brasil; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (tx) Schedl 1976a: 78.

submarginatus Eggers 1940d: 150. Lectotype ♀; Java (Batoerraden, G. Slamet); USNM, Washington, designated by Anderson & Anderson 1971: 32. Distribution: Asia (Malaya), Indonesia (Java), Philippine Islands.

Hosts: *Dyera costulata*, *Fagraea fragrans*.

Notes: (3) Schedl 1942d: 46 (described male).

References: (hb) Beeson 1933; Browne 1961c: 148; Kalshoven 1959c: 142. (ds) Beeson 1933; Browne 1961c: 148; Eggers 1926a; Hagedorn 1910d: 111; Kalshoven 1959c: 142; Kleine 1914b: 270; Schedl 1966b: 73. (tx) Anderson, W. H. & Anderson 1971: 32; Beeson 1933; Eggers 1922a, 1926a, 1927b, 1929e, 1940d: 150–151; Hagedorn 1910a: 157; Nobuchi 1983: 304; Schedl 1942d: 46, 1951i: 45, 50, 1958b: 102, 1979c: 241.

subgranosus Schedl 1962j: 309. Holotype ♀; Congo Belge: Route Tshibinda-Bunyakiri, 1000 m; Schedl Collection in NHMW, Wien.

Distribution: Africa (Zaire).

Hosts: *Pentaclethra macrophylla*.

References: (tx) Schedl 1962j: 309, 1979c: 241.

sublinearis Eggers 1940d: 148. Holotype ♀; Java (Preanger, G. Tangkoeban Prahoe); F.C. Drescher Collection.

Distribution: Indonesia (Java).

Notes: (1) Schedl 1979c: 242 lists the holotype as in his collection although Eggers clearly deposited it in the Drescher Collection.

References: (tx) Eggers 1940d: 148; Schedl 1951i: 45, 1979c: 242.

sublongus Eggers 1927c: 99. Holotype ♀; Philippinen: Luzon, Provinz Mt., Balaban and Prov. Bataan, Limay; Eggers Collection, in NHMW, Wien.

Distribution: Philippine Islands (Luzon).

References: (ds) Schedl 1966b: 73. (tx) Eggers 1927c: 99–100, 1943a: 386; Nobuchi 1983: 304; Schedl 1979c: 242.

submolestus Schedl 1941d: 403. Holotype ♀; Madagascar (Sikora); Schedl Collection in NHMW, Wien.

Distribution: Madagascar.

Hosts: *Althaudia procera*, *Eucalyptus* sp., *Mesogordonia* sp., *Pinus khasia*.

References: (ds) Schedl 1970d: 234, 1977b: 164. (tx) Schedl 1941d: 403, 1977b: 164, 1970d: 234, 1979c: 242.

subplanatus Eggers 1943a: 386. Holotype ♀; Bolivia (Cochabamba); Eggers Collection, in NHMW, Wien.

Distribution: South America (Bolivia).

References: (tx) Eggers 1943a: 386; Schedl 1979c: 243.

subpruinosis Browne 1986a: 93. Holotype ♀; Philippine Islands: Maconacon (Luzon) to Nagoya (Japan), imported.

Distribution: Philippine Islands (Luzon).

Hosts: *Canarium* sp. log.

References: (tx) Browne 1986a: 93.

subtilis Schedl 1970e: 96. Holotype ♀; Brasilien, Nova-Teutonia, 3–500 m, 27 degrees 11 minutes B, 52 degrees 23 minutes L; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

Notes: (3) This might be a synonym of *catulus*.

References: (ds) Schedl 1970e: 85. (tx) Schedl 1970e: 85, 96, 1979c: 244.

subtruncatus Schedl 1972m: 201. Holotype ♀; Fiji Is. ?; BMNH, London.

Distribution: Fiji Islands.

References: (tx) Schedl 1972m: 201.

subtuberculatus Eggers 1927a: 194. Holotype ♀; Belge Congo, Sankuru; MRCB, Tervuren.

Figures: Browne 1973a: 295, Nunberg 1963b: pl. 29, figs. 5–6.

Distribution: Africa (Angola/ Cameroon/ Congo/ Equatorial Guinea/ Gabon/ Ghana/ Ivory Coast/ Tanzania/ Uganda/ Zaire/ Zambia).

Hosts: Many listed by Schedl 1962j: 326–327. *Macrobium* sp., *Terminalia ivorensis*.

Notes: (3) Browne 1973a: 295 (described male).

References: (hb) Beaver & Loytyniemi 1955a: 76; Browne 1963a: 244; Loytyniemi, Beaver, & Loytyniemi 1984; Schedl 1962j: 324. (ds) Beaver & Loytyniemi 1955a: 76; Browne 1963: 244, 1985b: 76; Ferreira 1965: 1125; Kleine 1934a; Mayne & Donis 1962: 323; Nunberg 1960a: 296, 1961a: 331; Schedl 1938d: 451, 1954e: 54, 70, 1959p: 21, 1961m: 84, 1962h: 61, 1962j: 324, 1962k: 1104, 1963a: 32, 1964e: 69, 1964f: 618, 1966c: 229, 1967e: 219, 1971f: 149, 1971g: 194, 1972e: 284, 1979c: 416; Wichmann 1954: 522. (tx) Browne 1973a: 295; Eggers 1927a: 194–195; Nunberg 1963b: 59, pl. 29; Powell, W. 1980: 29; Schedl 1941d: 380, 404, 1950d: 8, 1952j: 4, 1961e: 148, 1962j: 324–325, 1962k: 1104, 1965c: 71.

sulcaticeps Schedl 1962j: 318. Holotype ♀; Congo Belge: Irumu; Schedl Collection in NHMW, Wien.

Distribution: Africa (Zaire).

References: (tx) Schedl 1951k: 152, 1962j: 318, 1979c: 245.

sulcatulus Eggers 1939b: 13. Holotype ♀; Nordost-Birma (Kambaiti, 7000 Fuss); NHR, Stockholm.

Distribution: Asia (Burma).

References: (tx) Schedl 1939b: 13–14, 1979c: 245.

sulcicauda Schedl 1972b: 271. Holotype ♀; Fiji, Viti Levu; Schedl Collection in NHMW, Wien.

Distribution: Fiji Islands.

References: (ds) Browne 1974a: 65. (tx) Schedl 1972b: 271, 1979c: 246.

tenuipennis Browne 1974a: 71. Holotype ♀; Fiji: Viti Levu, Nausori Highlands; BMNH, London. Synonymy: Wood 1989: 177, Beaver 1991: 96.

References: (hb) Roberts 1977a: 264. (ds) Browne 1974a: 65; Roberts 1977a: 264. (tx) Beaver 1991: 96; Browne 1974a: 65, 71; Wood, S. L. 1989: 177.

sundaensis Eggers 1923a: 175. Lectotype ♀; Poerwakarta auf Java; USNM, Washington, designated by Anderson & Anderson 1971: 33.

Distribution: Indonesia (Java).

References: (hb) Browne 1961c: 107; Kalshoven 1959c: 136. (ds) Kalshoven 1959c: 136; Schedl 1964c: 305. (tx) Anderson, W. H. & Anderson 1971: 33; Eggers 1923a: 175–176; Schedl 1942c: 191, 1953c: 290.

swezeyi Beeson 1929: 234. Holotype ♀; Samoa: Tutuila, Fagasa; BPBM, Honolulu.

Distribution: Samoan Islands.

Hosts: *Elaeocarpus* sp., *Leucaena* sp.

Notes: (3) Schedl 1955b: 287 (described male).

References: (hb) Beaver 1976b: 541. (ds) Beaver 1976b: 541; Beeson 1938b: 294. (tx) Beeson 1929: 234–235; Schedl 1951k: 137, 1955b: 287, 308; Schedl 1979c: 248.

taichuensis Schedl 1952c: 64. Syntypes ♀; Formosa, Taichu; Schedl Collection in NHMW, Wien and Chujo Collection.

Distribution: Asia (Taiwan).

Notes: (1) Schedl 1979c: 249 (citation of holotype invalid).

References: (ds) Nobuchi 1967: 23. (tx) Schedl 1952c: 64, 1979c: 249.

taïwanensis Browne 1980b: 386. Holotype ♀; Kaohsiung (Formosa) to Nagoya (Japan), imported; BMNH, London.

Distribution: Asia (Taiwan).

Hosts: *Zelkova formosana*.

References: (tx) Browne 1980b: 386.

takeharai Browne 1983a: 557. Holotype ♀; Teminabani (West Irian) to Nagoya (Japan), imported; BMNH, London.

Distribution: New Guinea.

References: (tx) Browne 1983a: 557.

takinoyensis Murayama 1953b: 109. Holotype ♀; Wakamatsu City, Fukushima pref. or Ohta vill., Kuromori, Japan; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan).

References: (ds) Murayama 1954b: 183; Nobuchi 1985c: 28. (tx) Murayama 1953b: 109, 1954b: 183.

taxicornis Schedl 1971c: 385. Holotype ♀; Malaya, Kepong; BMNH, London.

Distribution: Asia (Malaya).

References: (tx) Schedl 1971c: 385, 1979c: 250.

temetiuius Beeson 1935b: 112. Syntypes 4 ♀; Hivaoa: Matauuna, 3700 feet, Temetiu Ridge, 3900 feet, Temetiu summit, 4160 feet; not given (BPBM, Honolulu?).

Distribution: Marquesas Islands.

Hosts: *Cheirodendron* sp., *Cyrtandra* sp.

References: (ds) Beeson 1938b: 294, 1939: 112, 114. (tx) Beeson 1935b: 112–113.

tenellus Schedl 1957d: 107. Holotype ♀; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren. Figures: Nunberg 1963b: pl. 27, figs. 6–7, pl. 28, fig. 1, Schedl 1962j: 520.

Distribution: Africa (Zaire).

Hosts: *Alchornea hirtella*, *Ficus* sp., *Micrococos pinnatifida*, *Syzygium congolense*, *Turraeanthus africana*.

Notes: (1) Originally named as a subspecies of *montanus* Schedl (preoccupied), it automatically replaced *montanus* when the homonymy was found; the subsequent replacement names *syzygii* Nunberg and *submontanus* Schedl have no status. References: (tx) Nunberg 1963b: 55; Schedl 1957d: 107, 1960i: 106, 1962j: 521, 1979c: 251.

montanus Schedl 1957d: 106. Holotype ♀; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren, preoccupied by Niisima 1910.

References: (hb) Schedl 1962j: 520. (ds) Schedl 1962j: 520. (tx) Nunberg 1959c: 167; Schedl 1957d: 106, 1960i: 106–107, 1962j: 520, 1979c: 159.

syzygii Nunberg 1959c: 167. Holotype ♀; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren, automatic.

Notes: (1) This is an unneeded replacement name.

References: (tx) Nunberg 1959c: 167, 1963b: 56, pl. 27–28; Schedl 1957d: 106.

submontanus Schedl 1960i: 106. Holotype ♀; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren, automatic.

Notes: (1) This is an unneeded replacement name.

References: (tx) Nunberg 1959c: 167, 1963b: 55; Schedl 1960i: 106–107, 1962j: 520.

teminabani Browne 1986c: 668. Holotype ♀; New Guinea: Teminabani to Nagoya (Japan), imported; BMNH, London.

Distribution: New Guinea.

References: (tx) Browne 1986c: 668.

timidus Schedl 1973f: 76. Holotype ♀; Peria Creek, Kwagira River, M. Bay Dist. [New Guinea], 50 m; AMNH, New York.

Distribution: New Guinea.

References: (tx) Schedl 1973f: 76, 1979c: 253.

tinnitus Schedl 1941d: 402. Holotype ♀; Kamerun; Schedl Collection in NHMW, Wien.

Distribution: Africa (Cameroon).

References: (tx) Schedl 1941d: 402, 1962j: 211, 1979c: 253.

titubanter Schedl 1948h: 578. Holotype ♀; Mexico; Schedl Collection in NHMW, Wien.

Distribution: North America (Puebla in Mexico).

Hosts: *Alnus* sp.

References: (hb) Wood, S. L. 1982b: 826. (ds) Wood, S. L. 1982b: 826. (tx) Schedl 1948h: 578, 1979c: 253; Wood, S. L. 1975a: 23, 1982b: 826.

dissidens Wood 1974a: 41. Holotype ♀; 9 km NE Teziutlan, Puebla, Mexico; Wood Collection. Synonymy: Wood 1975a: 23.

References: (tx) Wood, S. L. 1974a: 41, 1975a: 23.

todo Kono 1938b: 71. Holotype ♀; Japan: Hokkaido, Nopporo; not given.

Distribution: Asia (Japan).

References: (ec) Yasumatsu & Watanabe 1965: 70. (tx) Kono 1938: 45–46, 1938b: 65, 71.

tonsus (Hagedorn) 1905: 412 (*Dryocoetes*). Holotype ♀; environs de Saint-Georges, Oyapock, Guyane française; MNHN, Paris.

Distribution: South America (Cayenne).

Notes: (3) Wood, S. L. 1977b: 211 (to *Xyleborus*). References: (ds) Hagedorn 1910d: 67; Kleine 1913b: 136, 1914b: 338; Murayama 1957c: 607. (tx) Eggers 1933b: 2–3; Hagedorn 1905: 412, 1910a: 96; Murayama 1957c: 607; Wood, S. L. 1977b: 211.

transitus Schedl 1962j: 170. Holotype ♀; Kamerun; Schedl Collection in NHMW, Wien.

Distribution: Africa (Cameroon).

References: (tx) Schedl 1962j: 170, 1979c: 254.

triangi Schedl 1958b: 103. Lectotype ♀; Malaya, Triang Forest Reserve; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 255. Distribution: Asia (Malaya).

Hosts: *Balanocarpus heimii*, *Shorea laevis*.

References: (hb) Browne 1961c: 149. (ds) Schedl 1959c: 168. (tx) Schedl 1958b: 103, 1979c: 255.

tribulatus Wood 1974a: 39. Holotype ♀; Rio Damitas, Dota Mts., San Jose, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: Liana.

References: (ds) Wood, S. L. 1982b: 819. (tx) Wood, S. L. 1974a: 39, 1982b: 819.

trispinatus Browne 1981a: 130. Holotype ♀; Butuan (Philippines) to Tokyo (Japan), imported; BMNH, London.

Distribution: Philippine Islands.

Hosts: *Shorea* sp.

References: (tx) Browne 1981a: 130; Nobuchi 1983: 304.

tristiculus Wood 1975b: 401. Holotype ♀; Brazil, 12 degrees 49 minutes S, 51 degrees 46 minutes W; BMNH, London.

Distribution: South America (Brazil).

Notes: (1) This probably belongs to *Theoborus*.

References: (tx) Wood, S. L. 1975b: 401.

truncaticauda Browne 1984d: 100. Holotype ♀; New Guinea: Gumi; BMNH, London.

Distribution: New Guinea.

References: (tx) Browne 1984d: 100.

truncatulus Schedl 1957d: 94. Holotype ♀; Congo Belge: Kivu, Hembe-Bitale; MRCB, Tervuren. Figures: Nunbert 1963b: pl. 30, Schedl 1962j: 311. Distribution: Africa (Nigeria/ Ruanda/ Zaire).

Hosts: *Alchornea hirtella*, *Brillantaisia* sp., *Dichapetalum* sp., *Ficus* sp., *Macaranga* sp., *Pentadesma lebrunii*.

References: (hb) Schedl 1962j: 310. (ds) Schedl 1962j: 310. (tx) Nunberg 1963b: 60, pl. 30; Schedl 1957d: 94, 1962j: 310–311.

tsukubanus Murayama 1954b: 195. Holotype ♀; Mt. Tsukuba, Ibaragi pref.; Murayama Collection in USNM, Washington.

Distribution: Asia (Japan).

Hosts: *Quercus acuta*.

References: (ds) Murayama 1954b: 184; Nobuchi 1985c: 28. (tx) Murayama 1954b: 195.

tuberculosis Browne 1981b: 602. Holotype ♀; Balingtang (Philippines) to Nagoya (Japan), imported; BMNH, London.

Distribution: Philippine Islands.

Hosts: *Shorea* sp.

References: (ds) Ohno et al. 1987: 88, 1989: 64. (tx) Browne 1981b: 602.

tumucensis Hagedorn 1905a: 414. Lectotype ♀; Guyane française, rivière Lunier, Tumuc-Humac; MNHN, Paris, designated by Wood 1982b: 820. Figures: Nunberg 1959a: 22, figs. 3–4.

Distribution: North America (Costa Rica), South America (Brazil/ Cayenne).

Hosts: *Bursera simarubra*.

Notes: (3) Schedl 1960i: 107 (*obtrusus* Sampson, nomen nudum, synonymy).

References: (hb) Wood, S. L. 1982b: 810. (ds) Blackwelder 1947: 780; Hagedorn 1910d: 112; Kleine 1913b: 163, 1914b: 339; Schedl 1973d: 160; Wood, S. L. 1982b: 810. (tx) Eggers 1933b: 3; Hagedorn 1905a: 414, 1910a: 157; Nunberg 1959a: 22; Schedl 1960i: 107; Wood, S. L. 1972e: 200, 1982b: 810.

guayanensis Eggers 1933b: 26. Syntypes ♂ ♀; Nouveau Chantier, French Guiana; MNHN, Paris. Synonymy: Wood 1972e: 200.

References: (ds) Blackwelder 1947: 779;

Schedl 1973d: 158. (tx) Eggers 1933b: 3, 26–28; Nunberg 1959a: 426; Schedl 1979c: 114; Wood, S. L. 1972e: 200.

tunggali Schedl 1936j: 32. Lectotype ♀; Malay Peninsula, Pagang: Rotan Tunggali Forest Reserve, Bukit Kajang Forest Reserve, Selangor, Kanching Forest Reserve; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 258.

Distribution: Asia (Malaya/ Sri Lanka), Indonesia (Borneo).

Hosts: *Canarium* sp., *Castanopsis* sp., *Dryobalanops aromatica*, *Heritiera javanica*, *Shorea* spp.

References: (cn) Mathur & Singh 1961a: 39. (hb) Browne 1938a, 1961c: 150. (ds) Beeson 1961: 310; Browne 1938a, 1961c: 150, 1984b: 286; Mathur & Singh 1961a: 39; Ohno, Yoneyama, & Nakazawa 1987: 94. (tx) Schedl 1936j: 32, 1939e: 331, 1959a: 507, 1979c: 259.

turraeanthus Schedl 1957d: 103. Holotype ♀; Congo Belge: Kivu, route Tshibinda-Bunyakiri, km 77, 1000 m; MRCB, Tervuren.

Figures: Nunberg 1963b: pl. 30, fig. 7, pl. 31, fig. 1. Distribution: Africa (Zaire).

Hosts: *Turraeanthus africana*.

References: (ds) Schedl 1962j: 327. (tx) Nunberg 1963b: 61, pl. 30–31; Schedl 1957d: 103, 1962j: 327, 1979c: 259.

ugandaensis Schedl 1957e: 882. Holotype ♀; Uganda, Toro; BMNH, London.

Figures: Browne 1970: 570 (male).

Distribution: Africa (Kenya/ Tanzania/ Uganda).

Hosts: *Combretum guinezi*, *Maba abyssinica*.

References: (ds) Schedl 1962j: 293, 1972k: 296, 1979c: 296. (tx) Browne 1963b: 247, 1970: 570; Schedl 1957e: 882, 1962j: 293, 1979c: 259.

uncatus Schedl 1970e: 96. Holotype ♀; Brasilien, Jacupiranga (S.P.), 40 m, 24 degrees 45 minutes, 47 degrees 56 minutes; Schedl Collection in NHMW, Wien.

Distribution: South America (Brazil).

References: (ds) Schedl 1970e: 85, 96–97. (tx) Schedl 1970e: 85, 96–97, 1979c: 260.

ustus Schedl 1957d: 96. Holotype ♀; Congo Belge: Yangambe; MRCB, Tervuren.

Figures: Nunberg 1963b: pl. 31, figs. 2–3.

Distribution: Africa (Zaire).

Hosts: *Afzelia bella*, *Scorodophloeus zenkeri*.

References: (hb) Browne 1941; Schedl 1962k: 318. (ds) Schedl 1962j: 318. (tx) Nunberg 1963b: 61; Schedl 1957d: 96, 1962j: 318, 1979c: 263.

vanrynae Browne 1973a: 294. Holotype ♀; Zaire: Menkao, 60 km N. Kinshasa; MRCB, Tervuren.

Distribution: Africa (Zaire).

References: (tx) Browne 1973a: 294.

venustulus Schedl 1969b: 219. Holotype ♀; New Guinea: Jimi Valley Rain Forest, Western Highlands; CSIRO, Canberra.

Distribution: New Guinea.

Hosts: *Harpullia* sp.

References: (bv) Gray, B. 1974c. (hb) Gray, B. 1974c. (tx) Schedl 1969b: 219–220, 1979c: 265.

vernaculus Schedl 1975f: 372. Holotype ♀; Nuwok, Manus Island District, New Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1975f: 372, 1979c: 266.

viaticus Schedl 1974d: 464. Holotype ♀; Bulolo, Road 35, Morobe Dist., New Guinea; CSIRO, Canberra.

Distribution: New Guinea.

Hosts: *Rhus taitensis*.

References: (tx) Schedl 1974d: 464, 1979c: 267.

vicinus Eichhoff 1878b: 394. Holotype ♀; Venezuela; IRSNB, Brussels.

Distribution: South America (Venezuela).

References: (ds) Blackwelder 1947: 780; Hagedorn 1910d: 112; Kleine 1913b: 163, 1914b: 340. (tx) Eichhoff 1878b: 394; Hagedorn 1910a: 157.

viduus Eichhoff 1878b: 391. Syntypes ♀; uncertain, either Brasilia or America septentrionali [USA]; Hamburg Museum, lost.

Distribution: North America (Alabama, Florida, Maryland, Missouri, Tennessee in USA).

References: (ds) Blackwelder 1947: 780; Blatchley & Leng 1916: 623; Drooz 1985: 374; Hagedorn 1910d: 112; Kleine 1913b: 163; Leng 1918: 211, 1920: 342; Wood, S. L. 1982b: 836. (tx) Blatchley & Leng 1916: 623; Eichhoff 1878b: 391; Hagedorn 1910a: 159; Hopkins 1915b: 62, 1915c: 217; Wood, S. L. 1982b: 836.

viruensis Browne 1984a: 157. Holotype ♀; Viru Harbour (Solomon Islands) to Nagoya (Japan), imported; BMNH, London.

Distribution: Solomon Islands.

Hosts: Basswood log.

References: (ds) Ohno et al. 1988a: 94. (tx) Browne 1984a: 157.

vismiae Wood 1974a: 39. Holotype ♀; Rio Damitas, Dota Mts., San Jose, Costa Rica; Wood Collection. Distribution: North America (Costa Rica), South America (Venezuela).

Hosts: *Vismia guayanensis*, Guttiferae sp.

References: (hb) Wood, S. L. 1982b: 821. (ds) Wood, S. L. 1982b: 821. (tx) Wood, S. L. 1974a: 39–40, 1982b: 821.

volvulus (Fabricius) 1775: 454 (*Bostrichus*). Lectotype ♀; America ligno Dom v. Rohr [presumably Cuba]; UZMC, Copenhagen, designated by Wood 1982b: 833.

Figures: Nobuchi 1978a: pl. 4, Nunberg 1963b: pl. 7, figs. 1–6, Pedrosa-Macedo & Schonherr 1985: 44, Wood 1960a: 65.

Distribution: Africa (Angola/ Burundi/ Cameroon/ Congo/ Equatorial Guinea/ Ethiopia/ Gabon/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Mauritius Island/ Mozambique/ Namibia/ Nigeria/ Ruanda/

Seychelles Islands/ Somalia/ South Africa/ Sudan/ Tanzania/ Uganda/ Zaire/ Zimbabwe), Antilles Islands (Cuba/ Jamaica/ Puerto Rico/ Santo Domingo/ Trinidad), Asia (Burma/ Japan/ Korea/ Malaya/ Ryukyu Islands/ Taiwan/ Thailand), Australia, Fiji Islands, Hawaiian Islands, Indonesia (Borneo, Celebes, Java, Sumatra), Madagascar, North America (Belize/ Costa Rica/ El Salvador/ Guatemala/ Honduras/ Isla del Coco/ Baja California Sur, Chiapas, Guerrero, Jalisco, Mexico, Morelos, Nayarit, Oaxaca, Puebla, Quintana Roo, San Luis Potosi, Tabasco, Yucatan in Mexico/ Nicaragua/ Panama/ Florida in USA), South America (Argentina/ Bolivia/ Brazil/ Cayenne/ Chile/ Colombia/ Ecuador/ Galapagos Islands/ Guyana/ Paraguay/ Peru/ Suriname/ Uruguay/ Venezuela). Hosts: Many listed by Browne 1961c: 144. Schedl 1962j: 417–422 and Wood 1982b: 834.

Notes: (1) Eggers 1929e: 47 (to *Xyleborus*). (3) This species is doubtfully distinct from *perforans* and may intergrade with that species; reports of it from SE Asia to the SW Pacific region probably refer to *perforans* as do many records from Africa (SLW).

References: (bv) Choo, Woo, & Park 1988; Morales 1984. (cn) Ashby 1915: 311; Ballou 1905; Barrett 1908; Beaver 1985a: 67; Equihua-Martinez 1988; Estrada & Atkinson 1988: 208; Wood, S. L. 1977a: 73. (ec) Equihua & Atkinson 1986: 630. (hb) Ballou 1905; Barrett 1908; Beaver 1985a: 67; Beaver & Loytyniemi 1985a: 76; Burgos & Sancedo 1983: 99; Deyrup & Atkinson 1987a: 65; Equihua & Atkinson 1986: 630; Loytyniemi, Beaver, & Loytyniemi 1984; Morales 1984; Wood, S. L. 1982b: 833. (ds) Atkinson & Equihua 1985a: 87, 1985b: 238, 1986a: 421; Atkinson et al. 1986: 62; Ballou 1905; Beaver 1985a: 67; Beaver & Loytyniemi 1985a: 76; Blackwelder 1947: 780; Bright 1968b: 1318, 1972d: 85, 1982a: 128, 1985c: 174; Bruch 1914a; Burgos & Sancedo 1983: 99; Choo 1983: 112; Choo & Woo 1985: 166; Choo, Woo, & Park 1988; Deyrup & Atkinson 1987a: 65; Drooz 1985: 374; Equihua & Atkinson 1986: 630; Estrada & Atkinson 1988: 208; Ferrer 1942; Kleine 1914b: 379; Nunberg 1952: 21, 1963c: 98, 1965b: 21; Ohno, Yoneyama, & Nakazawa 1982a: 4, 1982b: 9, 1987a: 88, 1987b: 94; Ohno, Yoshioka, et al. 1985a: 94, 1989: 64; Pedrosa-Macedo & Schonherr 1985: 44; Tucker 1952: 347; Wood, S. L. 1957e: 1273, 1961c: 2, 1977a: 73, 1982b: 833. (tx) Bright 1968b: 1318, 1972d: 85, 1985c: 174; Choo 1983: 112; Eggers 1929e: 43, 47; Eichhoff 1878b: 378; Fabricius 1792: 363, 1801: 354, 383; Nunberg 1952: 21, 1959a: 443, 1964: 21; Pedrosa-Macedo & Schonherr 1985: 44; Schedl 1940a: 362–363, 1951: 73, 1952e: 123, 1952k: 164, 1956b: 30, 1957a: 194, 1958f: 35; Wood, S. L. 1960a: 65, 68, 1961c: 2, 1972e: 200, 1979b: 136, 1982b: 833.

torquatus Eichhoff 1868c: 146. Lectotype ♀:

Brasil; IRSNB, Brussels, designated by Wood 1982b: 833. Synonymy: Wood 1960a: 69.

Notes: (1) This variant was treated as a species by Schedl; it once might have formed a clearly defined geographical race, but the limits have been virtually obliterated by movement through commerce and consequent hybridization; while some populations are clearly distinguishable, many intergrade totally.

References: (bv) Schedl 1960f: 100; Schedl, W. 1962: 368. (cn) Anonymous 1892: 164–165, 1970c: 14; Bondar 1922: 1–113; Box 1953, 1953a; Cachan 1957: 5, 15, 42–53; Costa Lima 1956; Flutier 1960; Frappa 1933b: 179–181; Frohlich & Rodewald 1969: 99; Mayne 1917: 7, 27; Miller, N. C. E. 1941: 10; Morstatt 1937: 26; Veitch 1923: 1–30; Webb & Jones 1957: 25–42; Yunus & Hua 1980: 231. (ec) Banerjee 1983; Schedl 1955d: 189, 1962j: 404; Schimitschek 1964c: 178; Scott & DuToit 1970; Scott & van der Walt 1970; van der Walt & Scott 1971a. (hb) Browne 1961c: 144, 1963c: 245; Costa Lima 1956; Kalkhoven 1963; Miller, N. C. E. 1941; Pollet 1977; Roberts 1977a: 264; Schedl 1962j: 404. (ds) Alluaud 1900: 238–242; Alvarenga 1962: 24; Anonymous 1970c: 14; Baer 1886: 147; Beaver 1976b: 542; Besson 1935a, 1935b: 114, 1935b: 295, 1940: 200, 1941: 393; Blackwelder 1947: 779–780; Blandford 1898b: 196, 210–217; Brader 1964: 4; Brenier & Dubois 1965: 20, 84; Brimblecombe 1953: 36; Browne 1948: 892, 1961a, 1961b, 1961c: 144, 1963a: 245, 1974a: 65, 1975a: 760, 1975b: 395; Cleare 1924: 65–68, 1938: 237–245; Cola 1971, 1973; Costa Lima 1956: 359, 1956: 292; Dumbleton 1954: 28, 157; Ferreira 1965: 1126; Ferrer 1942; Fisher, Thompson, & Webb 1954: 3; Frappa 1933b; Froggatt 1936: 18; Gemminger & Harold 1872: 2686; Ghesquiere 1933a: 31–35, 1933b: 781–785; Hagedorn 1910d: 99, 112, 1913: 256; Jones, Roberts, & Webb 1959: 13; Kalkhoven 1963: 236; Kirsch 1875: 284; Kleine 1912a: 162, 1913b: 163, 1914b: 301, 327, 337, 344, 354, 371–372, 378–379, 1928: 306, 1934a: 175; Kolbe 1910: 40; LePelley 1968: 146; Lepesme et al. 1948: 647; Lever 1943a: 82; Mayne & Donis 1951: 334; Menier 1973a; Murayama 1929b: 1–13, 1930b: 23–37, 1936a: 148, 1937b: 375, 1950d: 101, 1950e: 15–21, 1951c: 4–6, 1952b: 167–171, 1953a: 17–32, 1953c: 156, 1954b: 203, 210, 1961a: 98, 109; Nobuchi 1967: 23–24, 1978a: 41, 1979a: 407; Nonveiller 1984: 42; Nunberg 1956: 144; Pollet 1977; Roba 1935: 340; Roberts 1969: 133–134, 1977a: 264; Roonwal 1954: 87; Sampson 1914: 387; Schedl 1934f: 1645, 1938d: 451, 1938g: 427, 1938h: 462–463, 1939e: 332, 1939g: 170, 1941d: 380, 1941f: 114, 1942a: 170, 1942d: 7, 1943d: 70, 1950d: 9–15, 1950e: 211, 1950g: 893–895,

- 1951e: 39, 1951g: 1103, 1952g: 53, 1952j: 5, 1953c: 291, 1953g: 242, 1954d: 871, 1954e: 47–73, 1955c: 31, 1955f: 259, 1957a: 194, 1957b: 151, 1957c: 325, 1957d: 15–16, 102, 1958d: 189, 196, 1959a: 504, 1959p: 21, 1960a: 75, 1960f: 39, 1961c: 71, 1961d: 177, 1961j: 349, 1962b: 184, 1962h: 61, 65, 1962j: 404, 1962k: 1104–1105, 1962m: 62, 1962p: 209, 1963a: 32, 1963c: 160, 1963f: 63, 1963h: 267, 1963i: 482, 1964e: 69, 1964f: 618, 1964i: 248–249, 1965e: 356, 1965g: 21, 1966a: 276, 1966b: 73, 1966c: 229, 1966f: 76, 79, 1966g: 29–37, 1967d: 4, 1967e: 219, 1969d: 4–12, 1969h: 105, 1970d: 234, 1970e: 85, 1970h: 180, 1971e: 5, 1971f: 149, 1971g: 194, 1972e: 284, 1972g: 38, 1972k: 296, 1973a: 368, 1973d: 159, 1974e: 52, 1975h: 350–351, 1975k: 278, 1976a: 55, 1977b: 181, 1977d: 279, 1977e: 43, 1978c: 293, 1979b: 416, 1982: 279; Schimitschek 1964: 178; Schonherr & Pedrosa-Macedo 1981: 57; Schreiner 1882: 248; Tymchak 1977: 10; Wichmann 1954: 517–521; Wolcott 1936: 318, 1948: 382–383; Yunus & Hua 1980: 231. **(tx)** Beaver 1976: 28; Beeson 1930: 47–96, 1935a: 114, 1935b, 1940; Blandford 1894d: 55, 103, 116, 1896a: 20, 1896f: 243, 1898b: 196, 210–217; Costa Lima 1956: 292; Eggers 1924: 111, 1925: 154, 1927a: 195–196, 1927b: 406, 1933b: 3, 34, 1939c: 114, 1940a: 108, 1940c: 238, 1943a: 385, 1943c: 66; Eichhoff 1868c: 146, 1878b: 374–380, 482–483; Hagedorn 1910a: 152, 157; Hopkins 1915b: 65; Kirsch 1875: 284; Nobuchi 1978a: pl. 4, 1983: 304; Nunberg 1960: 294, 1962: 224, 1963b: 19–21, 1968: 272–273; Sampson 1914: 387; Schaufuss 1891: 27, 1897: 210; Schedl 1931c: 347, 1936d: 4, 1940a: 363–364, 1948d: 37, 1948f: 261, 1948g: 26, 1948h: 577–578, 1950c: 205, 1950f: 35, 40–41, 1950i: 147, 1951h: 285–286, 1951m: 74, 1952a: 444–445, 1952e: 123, 1952h: 71–72, 1953d: 70, 1955b: 278, 1958c: 1, 1962j: 404, 1977b: 181; Strohmeier 1911: 17, 25; Wood, S. L. 1960a: 68–69; Wylie & Yule 1977.
- alternans* Eichhoff 1869: 280. Syntypes ♀; Santo Domingo; those in Hamburg Museum were lost, 1 is in IRSNB, Brussels. Synonymy: Eggers 1929c: 43.
Notes: (1) This variant is *volvulus* (s. str.).
References: **(ds)** Gemminger & Harold 1872: 2685; Hagedorn 1910d: 98; Kleine 1913b: 160, 1914b: 379; Pedrosa-Macedo & Schonherr 1985: 24. **(tx)** Eggers 1929c: 43; Eichhoff 1869a: 280, 1878b: 368; Hagedorn 1910a: 152; Pedrosa-Macedo & Schonherr 1985: 24; Schedl 1931c: 346, 1940a: 363, 1951m: 73; Wood, S. L. 1960: 68.
- badius* Eichhoff 1869a: 280. Syntypes ♀; St. Maurithus; Hamburg Museum, lost. Synonymy: Wood 1960a: 69.
References: **(cn)** Anonymous 1953j: 25; Cleare 1938: 237–245, 1939: 85–88; Fisher, Thompson, & Webb 1953; Chesquiere 1933a; Mathur & Singh 1960a: 9; Mayne & Donis 1951: 334; Murayama 1954: 19; Roonwal 1954: 87; Shiraki 1952. **(cc)** Anonymous 1953j: 25; Mayne & Donis 1951: 334. **(hb)** Thompson, C. H. 1963:&0. **(ds)** Beeson 1940: 200, 1961: 303; Blackwelder 1947: 779; Blandford 1894c: 579, 1896f: 243; Bright 1955c: 174; Browne 1949b; Cho 1957, 1963; Fairmaire 1892b; Froggatt 1936; Gemminger & Harold 1872: 2685; Chesquiere 1933a; Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 260, 301, 315, 326, 378, 1934a: 172; Ko 1969: 284; Kolbe 1910: 40; Mathur & Singh 1960a: 9; Mayne & Donis 1960: 104, 1962: 315; Murayama 1929b: 2, 1930b: 22, 1931a: 48, 1936b: 114, 1937b: 375, 1949a: 102, 1951a: 4, 1952b: 167, 1954a: 19, 1955: 99; Nunberg 1960a: 294, 1962: 224; Roonwal 1954: 87; Schedl 1938d: 451, 1938g: 427; Shiraki 1952; Thompson, C. H. 1963: 70. **(tx)** Blandford 1894d: 116; Bright 1955c: 174; Browne 1949b; Eggers 1927a: 195–196, 1940a: 108, 1940c: 238; Eichhoff 1869a: 280, 1878b: 379; Fairmaire 1892b; Hagedorn 1910a: 152, 1913b; Murayama 1930b: 22–26, 31, 1931a: 48–49, 1934c: 299, 1937b: 375, 1952b: 167, 1955: 99; Nunberg 1956a: 144, 1963b: 19, pl. 7; Schaufuss 1897a: 210; Schedl 1931c: 346, 1938d: 451, 1938g: 427, 1939e: 332, 355, 1939g: 170, 1939j: 565, 1941d: 380, 1942a: 170, 1942d: 7, 1950c: 205, 1950d: 9, 13, 15, 1950e: 211, 1950g: 895, 1951e: 39, 1951g: 1103, 1952e: 123, 1952g: 52–53, 1952j: 4–5, 1953c: 291, 1953d: 70, 1953g: 242, 1954d: 871, 1954e: 47, 51, 1955b: 278, 1955c: 31, 1955d: 268–271, 1955f: 259, 1957b: 151, 1957c: 325, 1957d: 15, 1958c: 1, 1962j: 404, 1966f: 76, 1979c: 32; Wood, S. L. 1960a: 69.
- interstitialis* Eichhoff 1878b: 375. Syntypes ♀; Mexico; Hamburg Museum, lost. Synonymy: Wood 1982b: 833.
References: **(ds)** Blackwelder 1947: 780; Blandford 1898b; Ferrer 1942; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 354. **(tx)** Blandford 1898b; Eichhoff 1878b: 375; Hagedorn 1910a: 154; Schedl 1940a: 361; Wood, S. L. 1982b: 833.
- guanaguatensis* Duges 1887: 141. Holotype ♀, Mexico, lost, Neotype ♀, America ligno Dom. v. Rohr [presumably Cuba], UZMC, Copenhagen, designated by Wood 1983a: 650. Synonymy: Objective synonym of *volvulus*, Wood 1983a: 650.
References: **(ds)** Blackwelder 1947: 778; Blandford 1898b; Ferrer 1942; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 354. **(tx)** Blandford 1898b; Duges 1887: 140–141; Hagedorn 1910a: 154; Hopkins 1914: 116; Schedl 1940a: 361; Wood, S. L. 1983a: 650.

- hubbardi* Hopkins 1915b: 62, 65. Holotype ♀; Biscayne Bay, Florida; USNM, Washington. Synonymy: Schedl 1952k: 164.
Notes: (1) This variant is *volvulus* (s. str.).
References: (ds) Blatchley & Leng 1916: 619; Leng 1920: 342. (tx) Blatchley & Leng 1916: 619; Hopkins 1915b: 62, 65; Schedl 1952k: 164.
- schwarzi* Hopkins 1915b: 62, 65. Holotype ♀; Key West, Florida; USNM, Washington. Synonymy: Bright 1968b: 1318.
Notes: (1) This variant is *volvulus* (s. str.).
References: (hb) Chamberlin 1939: 453. (ds) Blatchley & Leng 1916: 620; Chamberlin 1939: 453; Leng 1920: 342. (tx) Blatchley & Leng 1916: 620; Bright 1968b: 1318; Chamberlin 1939: 453; Hopkins 1915b: 62, 65; Schedl 1948f: 277, 1963j: 481.
- rileyi* Hopkins 1915b: 65. Holotype ♀; Capron, Florida; USNM, Washington. Synonymy: Bright 1968b: 1318.
Notes: (1) This variant is *volvulus* (s. str.).
References: (hb) Chamberlin 1939: 452. (ds) Bright 1955c: 174; Chamberlin 1939: 452; Leng 1920: 342. (tx) Bright 1968b: 1318, 1955e: 174; Chamberlin 1939: 452; Hopkins 1915b: 65.
- grenadensis* Hopkins 1915b: 61, 65. Holotype ♀; Grenada, West Indies; USNM, Washington. Synonymy: Wood 1972e: 200.
Notes: (1) This variant is *volvulus* (s. str.).
References: (cn) Dinther 1961; Fisher 1920: 1–134; Snyder 1927: 13; Strong 1921: 331–335. (ds) Blackwelder 1947: 779; Leng & Mutchler 1917: 220; Martorell 1945: 471–472; Wolcott 1936: 318, 1948: 383. (tx) Hopkins 1915b: 61, 65.
- silvestris* Beeson 1929: 241. Holotype ♀; Samoa; Upolu, Molololelei; BMNH, London. Synonymy: Wood 1989: 177.
Notes: (1) This variant is *torquatus*.
References: (cn) Mathur & Singh 1961a: 66. (ds) Beeson 1935b: 294; Mathur & Singh 1961a: 66; Pedrosa-Macedo & Schonherr 1955: 39. (tx) Beaver 1976b: 542; Beeson 1929: 241; Pedrosa-Macedo & Schonherr 1955: 39; Schedl 1951k: 139, 1955b: 285; Wood, S. L. 1989: 177.
- vagabundus* Schedl 1948f: 277. Holotype ♀; Mexico; Schedl Collection in NHMW, Wien. Synonymy: Wood 1972e: 200.
Notes: (1) This variant is *volvulus* (s. str.).
References: (tx) Schedl 1948f: 277, 1952e: 123, 1979c: 263; Wood, S. L. 1972e: 200.
- granularis* Schedl 1950g: 89S. Lectotype ♀; Brisbane, Australia ex imported Borneo Cedar; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 177.
Notes: (1) This variant is *torquatus*.
References: (tx) Browne 1965: 253; Nobuchi 1983: 302; Schedl 1950g: 89S, 1979c: 110; Wood, S. L. 1989: 177.
- vulcanus* Perkins 1900: 179. Holotype ♂; Hawaii: Kilauea; BMNH, London.
Figures: Samuelson 1981: 60.
Distribution: Hawaiian Islands (Hawaii, Kauai, Lanai, Maui, Oahu).
Hosts: *Acacia koa*, *Elacocarpus bifidus*, *Pelea* sp.
References: (cn) Seymour 1966a. (hb) Beaver 1976a: 28. (ds) Baker, W. L. 1972: 271; Beaver 1976a: 28; Beeson 1935b: 294; Hagedorn 1910d: 112; Kleine 1913b: 163, 1914b: 302; Samuelson 1981: 90; Schedl 1963c: 160; Wood, S. L. 1960a: 51. (tx) Hagedorn 1910a: 157; Perkins 1900: 179; Samuelson 1981: 60, 90; Wood, S. L. 1960: 51, 1966b: 32.
- truncatus* Sharp 1885: 192. Holotype ♀; Oahu; BMNH, London, preoccupied by Erichson 1842. Synonymy: Wood 1966b: 32.
References: (ds) Beeson 1935b: 294; Hagedorn 1910d: 112; Kleine 1914b: 302; Swezey 1941: 122, 1954: 14. (tx) Hagedorn 1910a: 157; Nunberg 1959a: 432; Perkins 1900: 175; Schedl 1941f: 112, 1958k: 152; Sharp 1892: 192; Wood, S. L. 1966b: 32; Zondag 1977.
- adpersus* Schedl 1958k: 152. Holotype ♀; Oahu; BMNH, London, automatic. Synonymy: Wood 1966b: 32.
Notes: (1) This is an unneeded replacement name.
References: (tx) Schedl 1958k: 152, 1979c: 257; Wood, S. L. 1966b: 32.
- pacificus* Nunberg 1959a: 432. Holotype ♀; Oahu; BMNH, London, automatic. Synonymy: Wood 1966b: 32.
Notes: (1) This is an unneeded replacement name.
References: (tx) Nunberg 1959a: 432; Wood, S. L. 1966b: 32.
- wakayamensis* Nobuchi 1981d: 144. Holotype ♀; Shionomisaki, Wakayama; Nobuchi Collection, Ibaraki.
Distribution: Asia (Japan).
Hosts: *Castanopsis cuspidata*, *Quercus phillyraeoides*.
References: (tx) Nobuchi 1981d: 144, 153.
- xanthophyllus* Schedl 1942a: 195. Lectotype ♀; Malaya; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 270.
Distribution: Asia (Malaya).
Hosts: *Iranium xanthophyllum*.
References: (hb) Browne 1961c: 106. (tx) Schedl 1942a: 195, 1955b: 278–279, 1979c: 270.
- xylographus* (Say) 1826: 256 (*Bostrichus*). Holotype ♀, Pennsylvania [USA], lost, Neotype ♀, North Carolina [USA], CNCI, Ottawa, designated by Bright 1968b: 1313.
Figures: Bright 1976d: 133, Nunberg 1959a: pl. 23, figs. 3–4.
Distribution: Antilles Islands (Cuba/Guadeloupe/Puerto Rico), North America (British Columbia,

Ontario, Quebec in Canada/ Arkansas, California, District of Columbia, Florida, Georgia, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, Virginia, West Virginia, Wisconsin in USA).

Hosts: *Quercus* spp., rare in other hosts.

Notes: (3) Many citations of this name published prior to Wood 1960b: 68 are to *Xyleborinus saxeseni*, a species that was thought by some workers to be the male of *xylographus* Say; some of these have the word "error" written after the citation below. Specimens from British Columbia to California were thought to be errors in labeling, but are now known to represent introductions to that area.

References: (ay) Hopkins 1894g. (bv) Kalshoven 1962a: 13; Meixner 1937: 1219; Roling & Kearby 1975b, 1977. (cn) Bremner 1907: 195; Brock 1915: 285 (error); Chamberlin 1917: 356, 1918: 377 (error), 1924; Doane et al. 1936; Ebeling 1950, 1959; Ebeling & Pence 1953: 31–32 (error); Fall & Cockerell 1907: 217; Felt 1926a: 247–248, 277, 1930a: 247–248, 278; Graham 1939b; Harrington 1881: 32; Herrick 1935: 179; Hopkins 1899: 358; Horn, Essig, & Herns 1923: 10 (error); Hubbard 1896: 318, 1897b: 24–26; Keen 1929: 56; Kowal 1949a: 13; Lintner 1896: 270; Lugger 1899: 311–314; Ormerod 1898: 270; Packard 1881: 163–166, 1890: 711; Roling & Kearby 1977; Saunders 1884: 55; Seaver 1921: 770; Skinner 1905: 248; Smith, J. B. 1900: 363; Snyder 1927: 9; Swaine 1918a: 126–127; Washburn 1903: 60, 82, 91; Weldon 1915: 285 (error), 1918: 377 (error); Wichmann 1927b: 374. (cc) Graham 1939b; Hubbard 1896: 318; Peplinski & Merrill 1974; Roling & Kearby 1977; Rumbold 1931c: 849; Skelly 1966: 902, 1968: 1541; Steinhaus 1946: 404, 1949: 92; Verrall 1943: 142; Webb 1945: 64; Wertz, Skelly, & Merrill 1971. (hb) Baker, W. L. 1972: 270; Beal & Massey 1945: 153–154; Bright 1976d: 137; Chamberlin 1939: 451–452; Chittenden 1890; Deyrup & Atkinson 1987a: 65; Doane et al. 1936; Ebeling 1950; Felt 1926: 247–248, 277, 1930a: 247–248, 278; Graham 1939b; Herrick 1935: 179; Hopkins 1894g: 278; Hubbard 1897a: 426, 1897b: 24; Kalshoven 1962: 13; Keen 1929: 56; Lengerken 1954: 312; Negru & Pirvescu 1966: 149; Packard 1890: 711; Saunders 1883: 325, 1884: 55; Skinner 1905: 248; Swaine 1918a: 126–127; Wichmann 1927b: 374; Wood, S. L. 1982b: 836. (ds) Anonyms 1926c: 520; Baker, W. L. 1972: 270; Beal & Massey 1945: 153–154; Blatchley & Leng 1916: 621; Bright 1968b: 1313, 1976d: 137, 1985c: 174; Chamberlin 1925, 1939: 451–452; Chittenden 1890; Cockerell et al. 1907; Deyrup 1981: 7; Deyrup & Atkinson 1987a: 65; Dodge 1938; Dozier 1918: 374 (error); Drooz 1985: 374; Ebeling 1950, 1959; Escalera 1919; Everts 1922: 648; Felt 1926: 247–

248, 277, 1930a: 247–278; Frost 1964: 144; Gemminger & Harold 1872: 2686; Hagedorn 1910d; Hamilton 1889: 158, 1894b: 406, 1895: 346–378; Henshaw 1885: 148; Hopkins 1893a: 136; Hoppling 1922; Hubbard & Schwarz 1878a: 666; Keen 1929: 41, 56; Kirk 1969, 1970; Kleine 1913b: 163, 1934a: 176; Leng 1920: 342; Leonard 1928: 520; Melsheimer 1806: 8, 1853: 87; Negru 1966b: 403; Negru & Pirvescu 1966: 149; Negru & Rosca 1967: 141; Schedl 1959r: 43, 1961b: 184; Schwarz 1878d: 468, 666, 1886: 41, 45; Smith, J. B. 1900: 363, 1910: 402; Swaine 1909: 157; Winter, T. G. 1983: 28; Wood, S. L. 1957c: 403, 1977a: 73, 1982b: 836. (tx) Balachowsky & Mesnil 1935: 28; Beal & Massey 1945: 153–154; Benoit 1985: 284; Blatchley & Leng 1916: 621; Bright 1968b: 1313, 1976d: 133, 137, 1985c: 174; Chamberlin 1939: 451–452; Dodge 1938: 13, 54; Eichhoff 1878b: 369, 1896: 608, 1910a: 157; Fitch 1857: 716–720; Everts 1922: 648; Hagedorn 1910a: 157; Hopkins 1915b: 62; Hubbard 1897b: 24–26; Jacques 1951: 353; Keen 1929: 41; LeConte 1868: 160, 1876: 359–360, 1878a: 468; Meixner 1937: 1219; Negru 1966b: 403; de Ruelle 1970: 98; Say 1826: 318; Schedl 1955: 256, 1957b: 150–151 (error), 1959r: 43 (error), 1960e: 173 (error), 1960g: 11 (error), 1963i: 63; Schedl, Lindberg, & Lindberg 1959: 25 (error); Schwarz 1886: 41–42, 45, 1889b: 149; Stresemann et al. 1899: 353; Swaine 1909: 157, 1917: 23–24, 1918a: 126–127; Wood, S. L. 1957c: 403, 1960b: 68, 1970: 98; Zimmermann 1868: 145. *inermis* Eichhoff 1868a: 401. Holotype ♀; Cuba; Hamburg Museum, lost. Synonymy: Eichhoff 1878b: 370.

References: (cn) Doane et al. 1936; Hubbard 1897b: 22. (hb) Chamberlin 1939: 451; Doane et al. 1936; Hopkins 1905a: 383; Hubbard 1897b: 20. (ds) Blackvelder 1947: 780; Blatchley & Leng 1916: 628; Chamberlin 1939: 451; Gemminger & Harold 1872: 2686; Hagedorn 1910d; Kleine 1913b: 161, 1914b: 378, 394, 1934a: 173; Leng 1920: 342; Leng & Mutchler 1917: 220; Martorell 1945: 471–472; Smith, J. B. 1910: 402; Swaine 1909: 154; Wolcott 1958: 383. (tx) Blandford 1898b: 217; Blatchley & Leng 1916: 618; Bright 1968b: 1313; Chamberlin 1939: 451; Eggers 1922c: 12–18; Eichhoff 1868a: 401, 1876: 609, 1878b: 370–372; Hagedorn 1910a: 154; Hopkins 1915b: 61, 64; Hubbard 1897b: 20–22; Numborg 1959a: 429; Schedl 1940a: 363, 1952d: 347, 1952k: 162–163, 1963i: 63; Swaine 1909: 154–155, 1917: 24, 1918a: 127.

canadensis Swaine 1917: 24. Lectotype ♀; Isle Perrot, Quebec [Canada]; CNCI, Ottawa, designated by Bright 1976b: 680. Synonymy: Wood 1957c: 403.

References: (cn) Chamberlin 1924; Doane et al. 1931; Swaine 1918a: 126–127. (hb) Chamberlin 1939: 455; Doane et al. 1936; Swaine

1918a: 126–127. **(ds)** Beaulne 1956; Chamberlin 1939: 455; Kleine 1934a: 172; Leng 1920: 342. **(tx)** Bright 1967b: 680; Chamberlin 1939: 455; Hoebeke 1978; de Ruette 1970: 114; Schedl 1951i: 51, 1955b: 297, 1962j: 498; Swaine 1917: 24, 1918a: 126–127; Wood, S. L. 1957c: 403.

xyloteroides Eggers 1939c: 120. Holotype ♀; Formosa (Kahodai); Chujo Collection.
Distribution: Asia (Taiwan).
References: **(ds)** Nobuchi 1967: 24. **(tx)** Eggers 1939c: 120–121.

xylotrupes Schedl 1962j: 311. Holotype ♀; Congo Belge; Yangambi; Schedl Collection in NHMW, Wien.
Distribution: Africa (Zaire).
Hosts: *Microcos pinnatifida*.
References: **(cn)** Schedl 1962j: 311. **(tx)** Schedl 1962j: 311, 1979c: 270.

Genus *Taurodemus* Wood

TAURODEMUS WOOD 1980c: 96. Type-species: *Xyleborus sharpi* Blandford, original designation.
Keys: Wood 1982b: 778 for North and Central America.
References: **(hb)** Wood, S. L. 1986a: 83. **(ds)** Wood, S. L. 1986a: 83. **(tx)** Wood, S. L. 1980c: 96, 1986a: 83.

bicornutus (Wood) 1974a: 33 (*Xyleborus*). Holotype ♀; 17 km SE Miri, Barinas, Venezuela; Wood Collection.
Distribution: South America (Colombia/Venezuela).
Hosts: *Brownia* sp., *Hirtella trianda*, *Inga* sp., *Nectandra* sp., *Protium* sp., *Rhcedia madruno*.
References: **(tx)** Wood, S. L. 1974a: 33.

ebenus (Wood) 1971: 39 (*Xyleborus*). Holotype ♀; Guapiles, Limon Prov., Costa Rica; Wood Collection.
Distribution: North America (Costa Rica/Panama), South America (Colombia).
Hosts: *Pouteria* sp., *Protium nerosum*, *Theobroma cacao*.
References: **(tx)** Wood, S. L. 1971: 39, 1982b: 793.

flavipes (Fabricius) 1801: 388 (*Bostrichus*). Syn-types 3 ♀; America meridionali; UZMC, Copenhagen.
Distribution: South America (Venezuela).
Hosts: *Alex imperatrix*, *Parinari excelsa*, *Protium* sp.
References: **(ds)** Blackwelder 1947: 779; Gemminger & Harold 1872: 2690; Hagedorn 1910d: 54; Kleine 1913b: 128. **(tx)** Eggers 1929e: 42, 44, 1931c: 19, 1933g: 19–20; Fabricius 1801: 388; Hagedorn 1910a: 104; Panzer 1799: 61, no. 9.

godmani (Blandford) 1898b: 197 (*Xyleborus*). Holotype ♀; Bugaba, Chiriqui, Panama; BMNH, London.

Figures: Nunberg 1959a: pl. 21, figs. 7–8.

Distribution: North America (Costa Rica/Panama).

Hosts: *Vismia* sp., etc.

References: **(ds)** Blackwelder 1947: 779; Hagedorn 1910d: 105; Kleine 1914b: 371. **(tx)** Blandford 1898b: 195–197; Hagedorn 1910a: 152; Nunberg 1959a: 426; Wood, S. L. 1972c: 198.

caelebs Blandford 1898b: 198. Holotype ♂; Volcan de Chiriqui, Panama; BMNH, London.
Synonymy: Wood 1972c: 198.
References: **(ds)** Blackwelder 1947: 779; Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 371. **(tx)** Blandford 1898b: 195, 198; Hagedorn 1910a: 152; Wood, S. L. 1972c: 198.

pandulus (Wood) 1974a: 34 (*Xyleborus*). Holotype ♀; Fort Clayton, Canal Zone, Panama; Wood Collection.
Distribution: North America (Costa Rica/Panama).
Hosts: *Theobroma cacao*.
References: **(tx)** Wood, S. L. 1974a: 34, 1982b: 791.

perebeae (Ferrari) 1868: 252 (*Amphicranus*). Holotype ♀; Colombia; NHMW, Wien, lost?
Figures: Terra 1987: 24.
Distribution: North America (Costa Rica/Guatemala/Panama), South America (Brazil/Colombia/Venezuela).
Hosts: *Coffea robusta*, *Crotalaria* sp., *Liriosma singularis*, *Miconia* sp., *Ochroma* sp., *Perebea integrifolia*, *Psidium guava*, *Qualea ingens*, *Theobroma cacao*.
Notes: (3) Blandford 1898b: 200 (cited in *Xyleborus*).

References: **(cc)** Wichmann 1955a: 97. **(hb)** Beaver 1976a: 25. **(ds)** Atkinson & Equihua 1986a: 421; Beaver 1976a: 25; Blackwelder 1947: 780; Gemminger & Harold 1872: 2692; Hagedorn 1910d: 108; Kleine 1913b: 162, 1914b: 343; Schedl 1960a: 78, 1966f: 89, 1972g: 45, 1973d: 158; Terra 1987: 22; Wichmann 1955a: 97. **(tx)** Blandford 1898b: 200; Eggers 1929c: 44, 1933g: 20; Eichhoff 1878b: 470; Ferrari 1868: 252–253; Hagedorn 1910a: 155; Nordlinger 1868: 276; Terra 1987: 24; Wood, S. L. 1982b: 789–790.

ruber (Eichhoff) 1868c: 145 (*Xyleborus*). Holotype ♀; Brasil int. [America meridionalis (Brasilia interior) in Eichhoff 1878b: 344]; Hamburg Museum, lost.
Distribution: South America (Brazil).
Notes: (3) This could be a senior synonym of *splendidus* Schauffuss.

References: **(ds)** Blackwelder 1947: 780; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 110; Kleine 1914b: 337. **(tx)** Eichhoff 1868c: 145, 1878b: 344; Hagedorn 1910a: 156.

salvini (Blandford) 1898b: 200 (*Xyleborus*). Lectotype ♀; Volcan de Chiriqui, Panama; BMNH, London, designated by Wood 1982b: 790.
Figures: Lara & Schenfelt 1965: 172, 176.

Distribution: North America (Costa Rica/ Panama).
Hosts: *Conostegia oerstediana*, etc.

References: (**hb**) Lara & Shenefelt 1965: 171, 173.
(**ds**) Blackwelder 1947: 780; Hagedorn 1910d: 110; Kleine 1914b: 371. (**tx**) Blandford 1898b: 200; Hagedorn 1905a: 415, 1910a: 156; Lara & Shenefelt 1965: 172–173, 176; Wood, S. L. 1982b: 790.

sanguinicollis (**Blandford**) 1898b: 198 (*Xyleborus*).
Holotype ♀; Bugaba, Chiriqui, Panama; BMNH, London.

Distribution: North America (Pacific slope of Costa Rica/ Panama).

Hosts: *Vismia* sp., etc.

References: (**ds**) Blackwelder 1947: 780; Hagedorn 1910d: 110; Kleine 1914b: 371. (**tx**) Blandford 1898b: 195, 198–199; Hagedorn 1910a: 156; Wood, S. L. 1982b: 793.

sharpi (**Blandford**) 1898b: 199 (*Xyleborus*). Lectotype ♀; Paraiso [Canal Zone, Panama]; BMNH, London, designated by Wood 1982b: 792.

Figures: Atkinson & Aquihua 1988: 103, Blandford 1898b: pl. 7, Lara & Shenefelt 1965: 172, 176. Notes: (1) Blandford 1898b: 199 recorded this type from Paraiso, Guatemala; this error should be corrected to Paraiso, Panama. Wood 1982b: 792 (subspecies established).

References: (**ds**) Atkinson & Equihua 1986a: 421, 1988: 102; Blackwelder 1947: 780; Ferrer 1942; Hagedorn 1910d: 111; Kleine 1913b: 163, 1914b: 354, 371; Lara & Shenefelt 1965: 171, 173. (**tx**) Atkinson & Equihua 1988: 103; Blandford 1898b: 199–200; Hagedorn 1910a: 156; Lara & Shenefelt 1965: 172, 176; Schedl 1940a: 361; Wood, S. L. 1982b: 792.

sharpi sharpi:

Distribution: North America (Atlantic slope in Costa Rica/ Panama).

Hosts: *Terminalia* sp., *Theobroma cacao*.

Notes: Wood 1982b: 792 (subspecies established).

References: (**tx**) Blandford 1898b: 199; Wood, S. L. 1982b: 792.

sharpi lenis Wood 1974a: 35. Holotype ♀; 29 km E Coatzacoalcas, Veracruz, Mexico; Wood Collection.

Distribution: North America (Chiapas, Oaxaca, Veracruz in Mexico).

Hosts: Tree limbs.

References: (**tx**) Wood, S. L. 1974a: 35, 1982b: 792.

splendidus (**Schaufuss**) 1897: 111 (*Xyleborus*).
Holotype ♀; Amazonas; Hamburg Museum, lost.
Distribution: Antilles Islands (Trinidad), South America (Brazil/ Cayenne/ Venezuela).

Hosts: *Brownia* sp., *Guatteria* sp., *Ocotea guianensis*, *Parinari excelsa*, *Pouteria* sp., *Pseudoolmedia laevigata*, *Theobroma cacao*.

Notes: (3) This could be a junior synonym of *ruber*; more research is needed.

References: (**hb**) Beaver 1976a: 27. (**ds**) Beaver 1976a: 27; Blackwelder 1947: 780; Hagedorn 1910d: 111; Kleine 1913b: 163, 1914b: 337; Nunberg 1976a: 27. (**tx**) Anderson, W. H. & Anderson 1971: 31; Eggers 1929e: 49, 1933b: 2; Hagedorn 1910a: 156; Nunberg 1959a: 440; Schaufuss 1897b: 111.

camopinus Hagedorn 1903b: 549 (*Xyleborus*).
Syntypes ♀; Camopi Guyanae; Hamburg Museum, lost. Synonymy: Eggers 1929e: 49.

References: (**ds**) Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 339. (**tx**) Eggers 1929e: 49, 1933b: 2; Hagedorn 1903b: 549, 1910a: 152.

varians (**Fabricius**) 1801: 386 (*Bostrichus*).
Syntypes 5 ♀; published as *America meridionali*, types labeled Essequibo [Guyana]; UZMC, Copenhagen.

Figures: Nunberg 1959a: pl. 30, figs. 3–4.

Distribution: Antilles Islands (Trinidad), South America (Brazil/ Cayenne/ Guyana/ Suriname/ Venezuela).

Hosts: *Paritricia excelsa*, *Pseudoolmedia laevigata*, *Theobroma cacao*.

References: (**hb**) Beaver 1976a: 27. (**ds**) Beaver 1976a: 27; Blackwelder 1947: 780; Gemminger & Harold 1872: 2692; Hagedorn 1910d: 62; Kleine 1913b: 128; Schedl 1967d: 4, 1971f: 150. (**tx**) Eggers 1929e: 42, 44, 1933b: 2; Fabricius 1801: 386; Ferrari 1867a: 47; Hagedorn 1910a: 106; Nunberg 1959a: 443.

serratus Fabricius 1801: 388 (*Bostrichus*).
Syntypes 2 ♂; *America meridionali*, types labeled Essequibo [Guyana]; UZMC, Copenhagen.
Synonymy: Eggers 1929e: 42.

References: (**ds**) Gemminger & Harold 1872: 2691; Hagedorn 1910d: 55; Kleine 1913b: 128. (**tx**) Eggers 1929e: 42; Fabricius 1801: 388; Hagedorn 1910a: 105.

nnidentatus Fabricius 1801: 386 (*Bostrichus*).
Syntypes 3 ♀; published as *America meridionali*, types labeled Essequibo [Guyana]; UZMC, Copenhagen. Synonymy: Eggers 1929e: 42.

References: (**tx**) Eggers 1929e: 42; Fabricius 1801: 386.

insignis Eichhoff 1869a: 282 (*Xyleborus*).
Holotype ♀; Cayenne; IRSNB, Brussels. Synonymy: Eggers 1933b: 2.

References: (**ds**) Gemminger & Harold 1872: 2686; Hagedorn 1903b: 546, 1910d: 106; Kleine 1913b: 161, 1914b: 339. (**tx**) Eggers 1929e: 44, 1933b: 2; Eichhoff 1869a: 282, 1878b: 341; Hagedorn 1903b: 546, 1910a: 152; Nunberg 1959a: 443; Schaufuss 1897b: 112.

perversus Hagedorn 1905a: 414 (*Xyleborus*).
Holotype ♂; Guiana; MNHN, Paris. Synonymy: Beeson note written in his reprint while at MNHN, Paris, prior to 1950.

Notes: Beeson saw the type and wrote a note

of synonymy in his reprint in Wood Reprint Collection.

References: **(ds)** Hagedorn 1910d: 108; Kleine 1913b: 162, 1914b: 339. **(tx)** Eggers 1929e: 44, 1933b: 3; Hagedorn 1905a: 414, 1910a: 152.

varulus (Wood) 1974a: 35 (*Xyleborus*). Holotype ♀; 13 km SW El Vigía, Mérida, Venezuela; Wood Collection.

Distribution: South America (Colombia/Venezuela). Hosts: *Inga* sp., *Protium nervosum*.

References: **(tx)** Wood, S. L. 1974a: 35.

Genus *Xylosandrus* Reitter

XYLOSANDRUS REITTER 1913a: 80, 83. Type-species: *Xyleborus morigerus* Blandford, monobasic.

Apoxyleborus Wood 1980c: 90. Type-species: *Xyleborus mancus* Blandford, original designation. Synonymy: Wood 1984b: 229.

References: **(tx)** Wood, S. L. 1980c: 90, 1984b: 229.

Keys: Wood 1982b: 765 for North and Central America.

References: **(ay)** Francke-Grosmann 1957: 139–144; Nobuchi 1969a: 63. **(hb)** Browne 1961c: 165; Wolfenbarger 1948: 260, 1958: 1–51; Wood, S. L. 1982b: 764, 1986a: 83. **(ds)** Schedl 1966b: 77; Scheerpeltz & Winkler 1930: 257; Wood, S. L. 1982b: 764, 1986a: 83. **(tx)** Arnett 1960: 1044, 1968: 1044; Balachowsky 1949: 219; Bright 1968b: 1292; Browne 1963c: 54; Choo 1983: 97; Choo, Woo, & Nobuchi 1988b; Nobuchi 1981e; Reitter 1913a: 80, 83–84; Schedl 1977b: 219; Wood, S. L. 1982b: 764, 1986a: 83.

abruptoides (Schedl) 1955b: 298 (*Xyleborus*). Holotype ♀; Fiji: Viti Levu, Navai Mill, near Nandarivatu; BPBM, Honolulu.

Distribution: Fiji Islands.

Notes: (1) Browne 1963c: 55 (to *Xylosandrus*).

References: **(tx)** Browne 1963c: 55; Schedl 1955b: 284, 298, 1959c: 8.

abruptulus (Schedl) 1953f: 81 (*Xyleborus*). Lectotype ♀; Wongabel, Australia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 9.

Distribution: Australia (Queensland).

Hosts: *Loranthus* sp.

Notes: (1) Schedl 1964k: 213 (to *Xylosandrus*).

References: **(cn)** Browne 1968b: 720. **(hb)** Browne 1968b: 720. **(ds)** Brimblecombe 1953: 27; Browne 1968: 720. **(tx)** Schedl 1953f: 81, 1964k: 213, 1979c: 9.

adherescens Schedl 1971c: 375. Holotype ♀; Hui (?), Chuo Chan [Tonkin]; Schedl Collection in NHMW, Wien.

Distribution: Asia (Tonkin Island in Vietnam).

References: **(tx)** Schedl 1971c: 375–376, 1979c: 12.

arquatus (Sampson) 1912: 246 (*Xyleborus*). Holotype ♀; BMNH, London.

Distribution: Asia (Sri Lanka).

Hosts: *Cinnamomum* spp., *Symplocos loha*.

Notes: (1) Schedl 1964k: 213 (to *Xylosandrus*).

References: **(cn)** Hutson 1937: 22–28; Ruthierford 1914: 463–468; Speyer 1923: 17. **(ds)** Beeson 1930: 227; Bhasin, Roonwal, & Singh 1958; Kleine 1913b: 160, 1914b: 274, 1934a: 172; Schedl 1959a: 494. **(tx)** Beeson 1930: 227; Sampson 1912: 246; Schedl 1934d: 88, 1959a: 494, 1964k: 213, 1979c: 26.

assequens Schedl 1971c: 376. Holotype ♀; Malaya, Kelantan, Bukit Kabong; BMNH, London.

Distribution: Asia (Malaya).

Hosts: *Xanthophyllum* sp.

References: **(ds)** Schedl 1971c: 366, 376.

ater (Eggers) 1923a: 210 (*Xyleborus*). Holotype ♀; Batoe Insel (Tanah Masa); Natura Artis Magistra, Amsterdam (Kalshoven 1960d: 63 gives RNH, Leiden).

Figures: Nunberg 1978: 109.

Distribution: Asia (Fujian in China/ Malaya), Indonesia (Batoe Island, Borneo).

Hosts: *Adenanthera pavonina*, *Artocarpus* sp., *Cinnamomum* sp., *Dehaasia cuneata*, *Dryobalanops oblongifolia*, *Grewia latifolia*, *Palaquium stellatum*, *Pometia pinnata*, *Shorea bracteolata*, *S. leprosula*, *S. sumatrana*, *Swietenia macrophylla*, *Vitex pubescens*.

References: **(hb)** Browne 1961c: 110. **(ds)** Browne 1961c: 110. **(tx)** Eggers 1923a: 210; Kalshoven 1960d: 63–64; Nunberg 1978: 108–109; Schedl 1960e: 172, 1972q: 258.

retusiformis Schedl 1936j: 31 (*Xyleborus*). Holotype ♀; Borneo; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 177.

References: **(ds)** Schedl 1936j: 31. **(tx)** Schedl 1962p: 207–208, 1972q: 258, 1979c: 211; Wood, S. L. 1989: 177.

borealis Nobuchi 1981e: 34. Holotype ♀; Honshu, Kyushu (Japan); Nobuchi Collection, Ibaraki.

Figures: Nobuchi 1981e: figs 11–12.

Distribution: Asia (Japan/ Korea).

Hosts: *Camellia sasangua*, *Styrax obassia*.

References: **(ds)** Choo 1983: 97; Choo & Woo 1985: 165; Choo, Woo, & Nobuchi 1983: 172; Nobuchi 1985c: 22. **(tx)** Choo 1983: 97; Nobuchi 1981e: 34, figs. 11–12.

brevis (Eichhoff) 1877a: 121 (*Xyleborus*). Syntypes ♀; Nipon and Nipon insula Asiatica; IRSNB, Brussels (?).

Figures: Nakane et al. 1963: pl. 192, Nobuchi 1981e: figs. 1–4.

Distribution: Asia (Xizang [Tibet] in China/ Japan/ Korea/ Taiwan/ Thailand).

Hosts: *Berberis* sp., *Camellia japonica*, *C. sasangua*, *Cinnamomum japonicum*, *Diospyros kaki*, *Grevillia* sp., *Hamamelis* sp., *Lindera* spp., *Machilus thunbergii*, *Maesa tenera*, *Meliosoma cuneifolia*, *Parabenzoin praecox*, *Quercus* spp., *Smilax china*, *Styrax obassia*, *Viburnum* sp., *Weigela hortensis*.

References: (cn) Anonymous 1980g; Green 1912a: 38; Mathur & Singh 1960b: 25; Murayama 1954a: 22; Shiraki 1952; Ueno 1960. (ds) Anonymous 1980g; Beaver & Browne 1975: 302; Blandford 1894c: 579; Cho 1957, 1963; Choo 1983: 97; Choo & Woo 1985: 165; Choo, Woo, & Nobuchi 1983: 172, 1988a: 134; Green 1912a: 38; Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 260, 1934a: 172; Ko 1969: 287; Mathur & Singh 1960b: 25; Murayama 1929b: 2, 1930b: 19, 1931a: 42, 1936a: 131, 1937b: 375, 1953a: 17, 1953c: 156, 1954a: 22, 1954b: 176, 1955: 99, 102; Nakane et al. 1963: 383; Nobuchi 1967: 20, 1981e: 29, 1985c: 22; Shiraki 1952; Yin & Huang 1981: 567; Yin, Huang, & Li 1984: 181. (tx) Blandford 1894d: 104; Browne 1965a: 205; Choo 1983: 97; Eggers 1923a: 190; Eichhoff 1877a: 121, 1878b: 319–320; Green 1912a: 38; Hagedorn 1910a: 152, 1910b; Murayama 1930b: 19–23, 1931a: 41–43, 1936a: 131, 1937b: 375, 1953a: 17, 1954b: 176, 1955: 99, 102; Nakane et al. 1963: 383; Nobuchi 1981e: figs. 1–4; Schedl 1934f: 1645; Yin & Huang 1981: 567; Yin, Huang, & Li 1984: 181.

cucullatus Blandford 1894d: 121 (*Xyleborus*).

Syntypes ♂; Kurigahara, and Konose in Higo, Japan; BMNH, London. Synonymy: Murayama 1954: 176.

References: (ds) Hagedorn 1910d: 101; Kleine 1913b: 160, 1914b: 260. (tx) Blandford 1894d: 121; Hagedorn 1910a: 153; Murayama 1954: 176.

butamali (Beeson) 1930: 216 (*Xyleborus*). Syntypes 5 ♀; Bombay; Agsur, South Kanara, and Dandeli, North Kanara; FRI, Dehra Dun.

Figures: Chandra 1981: 287, Kumar & Chandra 1977: 41 (male).

Distribution: Asia (Maharashtra, Tamil Nadu in India).

Hosts: *Careya arborea*, *Dillenia pentagyna*, *Dipterocarpus indicus*, *Tectona grandis*, *Terminalia tomentosa*, *Vateria indica*.

Notes: (3) Kumar & Chandra 1977: 33 (described male).

References: (cn) Chandra 1981: 287; Mathur & Singh 1961b: 14. (cc) Chatterjee & Chatterjee 1951. (hb) Chandra 1981: 287; Chatterjee & Chatterjee 1951. (ds) Beeson 1930: 216–217; Chatterjee & Chatterjee 1951; Mathur & Singh 1961b: 14. (tx) Beeson 1930: 216–217; Chandra 1981: 287; Kumar & Chandra 1977: 33, 41; Schedl 1979c: 49.

compactus (Eichhoff) 1875: 201 (*Xyleborus*). Syntypes ♀; Japan; those in Hamburg Museum, lost, 1 in Schedl Collection in NHMW, Wien.

Figures: Lhost & Roche 1960: fig. 5, Nobuchi 1964: pl. 192, Samuelson 1981: 54, Schedl 1962j: 111.

Distribution: Africa (Cameroon/ Grande Comoro in Comoro Islands/ Equatorial Guinea/ Fernando Poo/ Gabon/ Ghana/ Ivory Coast/ Liberia/ Mauritania/ Nigeria/ Senegal/ Seychelles Islands/ Sierra

Leone/ South Africa/ Tanzania/ Uganda), Antilles Islands (Cuba/ Virgin Islands), Asia (Bonin Islands/ Guangdong in China/ Tamil Nadu in India/ Japan/ Malaya/ Ryukyu Islands/ Sri Lanka/ Taiwan/ Thailand/ Tonkin Island in Vietnam), Fiji Islands, Hawaiian Islands, Indonesia (Borneo, Celebes, Java, Sumatra), Madagascar, North America (Alabama, Florida, Louisiana, Mississippi, E Texas in USA), New Zealand, Philippine Islands, Reunion Island, Samoan Islands, South America (Brazil).

Hosts: Many listed by Browne 1961c: 169, Samuelson 1981: 54, Schedl 1962: 153–156. *Acalypha* sp., *Acer* sp., *Camellia sinensis*, *Cinnamomum camphora*, *Coffea arabica*, *Gossypium* sp., *Jacobinia* sp., *Olea europaea*, *Persea* sp., *Quercus myrsinaefolia*, *Rhizophora* sp.

References: (ay) Entwistle 1964: 183; Murayama & Kalshoven 1962; Sekhar & Sekhar 1964; Takagi & Okitsu 1966: 5; Takenouchi & Takagi 1967: 105–110. (bv) Atkinson, Foltz, & Connor 1988; Aulmann 1911; Copinath 1967a, 1984; Gray, B. 1974c. (cn) Alibert 1951; Anonymous 1962r, 1963p, 1964h, 1964k, 1964t, 1965d, 1965e, 1965q, 1966f, 1966j, 1966p, 1966t, 1967f, 1967i, 1967k, 1967s, 1968i, 1968n, 1968p, 1969g, 1969k, 1970h, 1970n, 1970r, 1971m, 1971u, 1971v, 1972j, 1972s, 1973e, 1973h, 1974j, 1975i, 1975s, 1975t, 1976b, 1976e, 1976e, 1976i, 1977j, 1977q, 1978d, 1979d, 1979n, 1980g, 1985, 1987; Anstead 1920: 179; Appanna 1946; Baldwin, J. G. 1977: 10; Ballard 1921; Barrett 1966: 88–89; Beardsley 1964; Beaver 1988a: 67; Bhat 1987; Bouriquet 1963: 130–131; Brader 1964: 109, 1965: 32; Browne 1968: 720; Chevalier 1931; Chobant 1897: 262; Corbett & Cater 1926: 22; Cranham 1963, 1964, 1966a, 1966b, 1966c; Davis 1966: 125; Dixon & Woodriff 1982; Drooz 1985: 375; Eden 1958, 1965; Entwistle 1960a, 1960b, 1962; Esser 1965: 3; Frappa 1929; Frohlich & Rodewald 1969: 99; Green 1912a: 39; Hall 1912: 741, 1913: 251–259; Hill, D. S. 1983: 496; Hofacker, Loomis, & Tucker 1984: 30; Jepson 1923: 19–21; Kaji 1964: 331; Kaneko 1965: 211–216, 1966: 5, 1967: 19–21; Kim 1965: 24; LePelley 1968: 138, 1973; Lever 1940a: 38–42; Lodos 1969; Low Chong Moi 1975; MacGowan 1973a: 3, 1979a, 1979b; Mangold, Wilkinson, & Short 1977; Mathur & Singh 1960a: 16, 1961a: 13; Mead 1965, 1966b: 8, 1967a: 7, 1967b: 4, 1969: 4, 1970b: 3, 1971: 3, 1972b: 3, 1973a: 3, 1978: 3, 1979a: 4, 1979b: 6; Miller, J. W. 1974: 6; Morstatt 1911b: 384; Nelson, R. E. & Davis 1972; Newtton, A. P. 1960; Pierce, J. R., Srago, & Fujii 1977: 15; Pierce, J. R., Wood, & Fujii 1977: 16; Radhakrishnan, Ramaiah, & Bhat 1987; Ramachandra 1928: 1–30; Ramesh 1987; Reydon 1933: 172; Rutherford 1914a, 1914b, 1914c: 131–132; Sakhar, Suseela, & Sakhar 1965: 71–75; Seal 1964; Seymour 1966a, 1966b; Sivarami 1980: 58; Speyer 1916: 250, 1918, 1919, 1923: 16–17, 22;

Stokes 1975b, 1975c; Szent-Ivany 1963: 42, 1964: 89; Strohmeyer 1910f: 188; Takenouchi & Takagi 1967: 105–110; Taylor, W. E. 1973: 57; Thiruganasantharam & Calnaido 1968, 1969; Vazquez & Monteagudo 1988; Venkataramaiah & Sekhar 1964: 208–210; Visser 1961; Wilde, Brader, & Ticheler 1964: 550–552; Wood, S. L. 1977a: 74; Wurth 1910: 105. **(cc)** Anonymous 1987; Appanna 1946; Arx & Hemebert 1965; Betrem 1935a, 1953; Bhat & Sreedharam 1988; Brader 1964b; Browne 1958b; Copinath 1970, 1972, 1984; Hara & Beardsley 1979; Kalshoven 1960b: 260; Kaneko 1967; Kaneko & Takagi 1966b; Kaneko, Tamaki, & Takagi 1965, 1965a; Kashiwa & Bega 1973; LePelley 1968: 138; Mulder 1960: 167; Ngoan et al. 1976; Norris 1979; Sharples 1936: 384; Steinmann 1925: 143; Thompson, W. R. 1943: 117; Vinodkumar, Balakrishnan, & Govindarajan 1986. **(hb)** Alibert 1951; Anonymous 1987; Anstead 1920; Appanna 1946; Atkinson, Foltz, & Connor 1988; Auhmann 1911; Beaver 1976b: 543, 1988a: 67; Beaver & Browne 1978: 614; Blandford 1894b; Browne 1958b, 1963a: 246, 1968b: 720; Cranham 1963, 1966b, 1966c; Deyrup & Atkinson 1987a: 66; Dixon & Woodruff 1982; Eden 1958, 1965; Entwistle 1964; Fröhlich & Rodewald 1969: 99; Copinath 1967a, 1984; Gray, B. 1974c; Hagedorn 1913a; Hamilton, W. D. 1967; Hara & Beardsley 1979; Hill, D. S. 1983: 496, 1987: 339; Kalshoven 1951: 850, 1959a: 224, 1959c: 162, 1961b, 1962: 17; Kaneko 1967; Kaneko & Takagi 1965: 23–28, 1966a: 1–20, 1966b: 173–176; Kaneko, Tamadi, & Takagi 1965a, 1965b: 23–28; Kleine 1932a: 306; LePelley 1968: 138; Ngoan et al. 1976; Pollet 1977; Roberts 1969: 134; Schedl 1977b: 219; Speyer 1923: 16; Takagi & Kaneko 1965a; Wood, S. L. 1982b: 768. **(ds)** Anonymous 1962r, 1963p, 1964h, 1964k, 1965d, 1965e, 1966f, 1966j, 1966p, 1966t, 1967f, 1967i, 1967k, 1967s, 1968i, 1968n, 1968p, 1968q, 1969g, 1969k, 1970h, 1970r, 1972j, 1972s, 1973e, 1973h, 1975i, 1975s, 1975t, 1976b, 1976c, 1976e, 1976i, 1977j, 1977q, 1978d, 1979d, 1979n, 1980g; Anstead 1920; Atkinson et al. 1991: 161; Ballard 1921; Beardsley 1965; Beaver 1976b: 543, 1988a: 67, 1990a: 280; Beaver & Browne 1978: 614; Beeson 1930: 250, 1938b; Bhasin, Roonwal, & Singh 1958: 111; Blandford 1894b, 1894c; Brader 1964b; Bright 1968b: 1294, 1985c: 174; Browne 1954, 1963c: 55, 1968: 720, 1974a: 65; Chapin & Oliver 1986; Chevalier 1931; Deyrup & Atkinson 1987a: 66; Dixon & Woodruff 1982; Drooz 1985: 375; Dumbleton 1954; Ebeling 1959; Frappa 1933b; Green 1912a; Hagedorn 1910d: 100, 1912: 38–40, 1913a; Hara & Beardsley 1979; Hargreaves 1930: 16–18, 1937: 510; Hill, D. S. 1983: 496; Kalshoven 1924b: 356, 1925b: 5, 1932: 244, 1958c: 220, 244, 1959c: 162, 1961b; Kashiwai & Bega 1973; Kleine 1913b: 160, 162, 1914b: 260, 323, 1932a: 306, 1934a: 172; Kolbe 1911: 508; LePelley 1968: 138; Lepesme et al. 1948:

647; Low Chong Moi 1975; Mathur & Singh 1960a: 16, 1961a: 13; Morstatt 1913: 292; Murayama 1949c: 102, 1952a: 17–20, 1953: 156–157, 1954b: 176, 1955: 99, 1961a: 99, 1961b: 26–28; Murayama & Kalshoven 1962: 447–450; Nobuchi 1981c: 29, 1985c: 22; Nobuchi & Ono 1973: 181; Pierce, J. R., Wood, & Fujii 1970: 16; Pollet 1977; Roba 1935: 340; Samuelson 1981; Schedl 1959a: 470, 495, 1962j: 153, 1967e: 215, 1969d: 7–12, 1969h: 101, 1971a: 274–276, 1971c: 366, 1971e: 1, 3, 1971g: 194, 1972c: 284, 1975h: 353, 1977b: 3219, 1979b: 416; Speyer 1916: 250; Strohmeyer 1910f: 188; Vasquez & Monteagudo 1988; Wood, S. L. 1977a: 74, 1980b: 353, 1982b: 768; Yin, Huang, & Li 1984: 169. **(tx)** Auhmann 1911; Beeson 1930; Blandford 1894b: 264, 1894c: 579, 1894d: 102, 107, 1896f: 243; Bright 1968b: 1294, 1985c: 174; Browne 1963c: 55; Eichhoff 1875: 201, 1877a: 123, 1878b: 328–329, 477; Green 1912a; Hagedorn 1910a: 153, 1912b: 36–39; Kalshoven 1959a: 1224; Murayama 1934c: 299, 1936: 149, 1952a: 20, 1954b: 176 1955: 99; Nobuchi 1964: 131, pl. 192, 1981e: figs. 8–10, 1983: 304; Numberg 1959: 434, 1969: 387; Samuelson 1977a: 219, 1981: 54; Schedl 1934f: 1646, 1939c: 330, 1942c: 163, 1942d: 4, 1950d: 18, 1950f: 39, 1953d: 70, 1954d: 872, 1954e: 54, 1959a: 495, 1977a: 219; Strohmeyer 1910: 86; Wood, S. L. 1982b: 768; Yin, Huang, & Li 1984: 169. **(ms)** Radhakrishnan, Ramaiah, & Bhat 1987. *morstatti* Hagedorn 1912: 37 (*Xyleborus*). Syn-types ♀; Amani, Deutsch-Ostafrika; Hamburg Museum, lost. Synonymy: Murayama & Kalshoven 1962: 247. References: **(ay)** Lhoste & Roche 1959: 76, 1960; Murayama & Kalshoven 1962. **(bv)** Betrem 1951: 281; Copinath 1967a. **(cn)** Ahrens & Vandenput 1952; Alibert 1951: 148; Anonymous 1933c: 625, 1960, 1962g, 1962h, 1962k, 1962y, 1963j, 1963r, 1963x; Appanna 1946: 70–74, 1947: 175–176; Auhmann 1911: 430–431; Auhmann & La Baume 1912: 63–64; Bardin 1940; Begemann 1927a: 329–334, 1927b: 273, 1927c: 10; Benavides 1961: 17; Betrem 1930c, 1930d, 1930e, 1931b, 1931c, 1931d, 1931e, 1932a, 1932b, 1932d, 1932e, 1933, 1934, 1935a, 1935, 1953; Brader 1962: 111; Braudean 1960; Brown 1954: 707–710; Bruck 1966a; Chevalier 1931: 661–665; Corporaal 1920: 13, 31, 1921: 22; Decelle 1962a: 207; Donald 1960, 1966; Ebeling 1959; Entwistle 1962; Fluiter 1938: 37, 1939: 38, 1940: 12, 1960; Franssen 1935: 38–41; Frappa 1929: 15–20, 1931: 255, 1933b: 175–180; Gregory 1954; Hagedorn 1913a; Hall 1925: 1–51, 1926: 14; Henao 1958; Hill, D. S. 1983: 515; Isasca 1941: 1367–1369; Jacob 1931: 1193, 1934: 1141; Jepson 1939: 45; Kalshoven 1925b: 5, 1932: 244, 1951: 850, 1958c: 220, 244; Keuchenius 1931a: 203–204; Kleine 1932a: 306, 1934:

- 174; Klinkhammer 1925: 1379; Lavabre 1958: 119, 124, 1959: 21–33, 1960: 6, 1962: 5; Leefmans 1927: 28–29, 59, 1928: 294, 1928b: 924–925, 1929: 53–95, 1930: 52–90, 1933: 43–75, 1934: 49–81; Lever 1938: 17, 20, 1939: 17–20, 1940a: 38, 1945: 373, 1946: 4, 30–32; Lhoste & Roche 1959: 76–86; Magnin 1954: 468; Mathur & Singh 1960a: 6, 1960b: 58, 1961a: 79; McIntosh 1949: 46; Meiffren & Belin 1960: 150, 1961: Menzel 1929: 1–106; Merrill 1951: 41; Morstatt 1914b: 308, 1914d: 16, 1914e: 138, 1937: 23, 1941: 216; Muller 1933: 105–107; Paine 1934: 39–41, 1935: 40; Pasquier 1932: 223–253; Pierce, W. D. 1917: 64; Porteres 1959: 6–11; Ritchie 1934: 76; Schedl 1962k: 137; Schweizer 1932: 1–87, 1933: 1–100; Somasekhar 1958: 224; Souphieff & Scherbinovskaja 1935: 43–84, 1937: 103; Speyer 1923: 11–23; Subramaniam 1935: 23–27, 1936: 23–25; Taylor, W. E. 1973: 57; Ultee 1928: 12, 1929: 59–60, 1930: 28, 1931a: 17, 1931b: 915, 1931c: 1100–1116, 1949: 7–88; Van der Goot 1928: 59–72, 1934: 39–69, 1935: 36–84; Venkataramaiah & Sekhar 1964: 208–210; Vincent 1961: 104; Vuillaume et al. 1981; Wyniger 1962a: 32; Yunus & Hua 1980: 230; Zeef & Leeuwenburgh 1931: 1065–1067; Zimmermann 1899: 43–44, 1901: 94–95, 1908: 328, 1908: 716. (**ec**) Appanna 1946; Benavides 1961: 17; Betrem 1935a, 1951: 278, 1953; Browne 1958b; Cachan 1957: 15; Decelle 1962a; Domenichini 1960; Donald 1960, 1966; Kalshoven 1960b: 260, 1960c, 1962a: 17; Lavabre 1962; Meiffren & Belin 1960: 150; Sharples 1936: 384; Thompson, W. R. 1943: 117; Vuillaume et al. 1981. (**hb**) Appanna 1946, 1947; Benavides 1961: 17; Betrem 1951: 278; Brader 1962; Browne 1941: 67, 1958b: 164–182, 1961c: 169–171; Dammerman 1929: 78; Donald 1960, 1966; Franklin & Roberts 1959: 10; Gerritsen 1931: 1080–1090; Chesquiere 1933a: 3, 1933b: 774; Copinath 1967a; Greenwood 1940: 211–218; Hagedorn 1913a; Hill, D. S. 1983: 515; Jones, Roberts, & Baker 1959: 13–14; Kalshoven 1951: 850, 1959a: 224, 1959c: 162, 1960b: 259–262, 1961b: 93–110, 1962: 17; Kleine 1932a: 306; Kolbe 1911: 508; Kuneman 1931: 1077–1080; Lavabre 1962; Roepke 1909: 366; Schedl 1962j: 137; Schmidt 1939: 84–275; Sharples 1936: 384; Stadt 1931: 1073–1077; Steinmann 1931: 255–257; Webb & Jones 1957: 38, 43. (**ds**) Anonymous 1933c: 625, 1962g, 1962k, 1962j, 1963j, 1963r, 1963x; Beeson 1930: 249–250, 1938b: 293, 1941: 400; Bhasin, Roonwal, & Singh 1958: 61; Brown 1954; Browne 1954: 707, 1961c: 169; Chevalier 1931; Davis 1963: 197; Decelle 1962b; Dumbleton 1954: 28, 147; Ebeling 1959; Frappa 1933b; Greenwood 1930: 65; Gregory 1955: 294; Hagedorn 1913a: 43–270; Hardy, D. E. 1962; Hargreaves 1922: 20–22, 1937: 510; Hill, D. S. 1983: 515; Kalshoven 1924b: 356, 1925b: 5–11, 1926a: 61–66, 118–120, 1926a: 629–635, 1926c: 172–178, 1932: 244, 1958a: 147–193, 1958c: 220, 244, 1959c: 147–162, 1961b, 1962a: 17; Kleine 1913b: 162, 1914b: 323, 1932a: 306, 1934a: 174; Lepesme et al. 1948: 647; Mathur & Singh 1960a: 6, 1960b: 58, 1961a: 79; Morstatt 1911: 69, 1913: 292, 1914: 139–141, 308; Muthukrishnan et al. 1958: 383; Nonveiller 1984: 41; Pierce, W. D. 1917: 64; Roba 1935: 340; Schedl 1936j: 31, 1961e: 144, 1961f: 91, 1961h: 349, 1962j: 137, 1964f: 618; Souphieff & Scherbinovskaja 1937: 103; Swezey 1945: 353; Szent-Ivany 1963: 42; Thompson, C. H. 1963: 72; Wichmann 1954: 520; Yunus & Hua 1980: 230. (**tx**) Beeson 1930: 249–250; Browne 1963c: 54; Eggers 1922a: 87, 1923a: 130, 1927b: 407, 1927c, 1930d: 182; Hagedorn 1912: 37–39; Kalshoven 1959a: 224–225, 1961b: 134; Lhoste & Roche 1960: fig. 5; Murayama & Kalshoven 1962: 247; Schedl 1936j: 31, 1939c: 330, 1942c: 163, 1942d: 4, 1950d: 18, 1950f: 39, 1953d: 70, 1954d: 872, 1954e: 54, 1959a: 470, 495, 1961e: 128, 144, 1962j: 111, 137, 1962k: 111.
- corthyloides** (Schedl) 1934d: 86 (*Xyleborus*).
Lectotype ♀; Java, Mount Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 66.
Distribution: Indonesia (Java).
Hosts: Zingiberaceae.
Notes: (3) Schedl 1964e: 69, 1975h: 351 report this species from the Ivory Coast in Africa; the identifications should be confirmed before this record is accepted (SLW).
References: (**ds**) Kalshoven 1935a: 14; Schedl 1964e: 69, 1975h: 351. (**tx**) Schedl 1934d: 86–87, 1936h: 62, 1975d: 65, 1979c: 66.
- percorthyloides** Schedl 1957d: 85 (*Xyleborus*).
Lectotype ♀; Java, Mount Gede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 66, automatic.
Notes: (1) This is an unneeded replacement name of *corthyloides*.
References: (**hb**) Kalshoven 1959c: 163. (**ds**) Kalshoven 1959c: 163. (**tx**) Browne 1962b: 50; Schedl 1957d: 85, 1958k: 149, 1979c: 188.
- crassiusculus** (Motschulsky) 1866: 403 (*Phloeotrogus*). Syntypes 3 ♀; published as Des Montagnes de Nura-Ellia, Ceylon, types labeled India Occidentale; IZM, Moscow.
Figures: Atkinson, Foltz, & Wilkinson 1988, Nakane et al. 1963: pl. 192. Samuelson 1981: 54. Schedl 1962j: 190, 1977b: 140.
Distribution: Africa (Cameroon/ Equatorial Guinea/ Fernando Poo/ Ghana/ Ivory Coast/ Kenya/ Mauritania/ Nigeria/ Sierra Leone/ Seychelles Islands/ Tanzania/ Zaire), Asia (Bhutan/ Bonin Islands/ Burma/ Fujian, Hong Kong,

Human, Sichuan, Xizang [Tibet] in China/ Andaman Islands, Assam, Bengal, Himachal Pradesh, Madhya Pradesh, Maharashtra, Tamil Nadu, Uttar Pradesh in India/ Japan/ Korea/ Malaya/ Nepal/ Sri Lanka/ Taiwan/ Vietnam), Hawaiian Islands, Indonesia (Borneo, Celebes, Java, Sumatra), Madagascar, Mauritius Islands, Micronesia (Palau Islands), New Caledonia, New Guinea, North America (Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas in USA), Philippine Islands, Samoan Islands.

Hosts: Many listed by Schedl 1962j: 197–205. *Albizzia lebbek*, *Alnus* sp., *Alstonia* sp., *Amoora* spp., *Artocarpus* spp., *Aucoumea klaineana*, *Bischofia javanica*, *Calophyllum tetrapterum*, *Canarium* sp., *Cannabris sativa*, *Castanea favanica*, *Castanopsis* spp., *Cedrela toona*, *Chloroxylon swietenia*, *Cinnamomum* sp., *Dalbergia sissoo*, *Dillenia pentagyna*, *Doonia zeylanica*, *Dipterocarpus* spp., *Elacocarpus sericeus*, *E. tetrapterum*, *E. tuberculata*, *Erythrina* spp., *Erythrophleum guineense*, *Ficus* spp., *Gliricidia maculata*, *Gluta tourtour*, *G. travancorica*, *Grevilla robusta*, *Guarea laurentii*, *Hevea brasiliensis*, *Holigarna arnottina*, *Hopea beccariana*, *H. ferrea*, *H. odorata*, *H. parviflora*, *H. wrightiana*, *Kayea floribunda*, *Khaya ivorensis*, *Lagerstroemia speciosa*, *Lannea grandis*, *Lasiococca* sp., *Leea sambucina*, *Lithocarpus wallichianus*, *Luffa* sp., *Macilus odoratissima*, *Malus pumila*, *Melanorrhoea* sp., *Murraya konigii*, *Myristica* spp., *Neodypsis baroni*, *Ongokea gore*, *Ongcinia dalbergioides*, *Pachytrophe dimepate*, *Phoebe lanceolata*, *Pinus khasia*, *Populus* sp., *Prunus persica*, *Pycnanthus angolensis*, *Quercus* spp., *Saccharum officinarum*, *Sageraea laurina*, *Sambucus chinensis*, *Scorodophloeus zenkeri*, *Shorea curtisii*, *S. maxwelliana*, *S. robusta*, *Sorbus alnifolia*, *Sterculia colorata*, *S. villosa*, *Styrax benzoin*, *Swietenia macrophylla*, *Swintonia specifera*, *Syzygium cumini*, *Tectona grandis*, *Terminalia* spp., *Theobroma cacao*, *Vateria indica*, *Vatica heteroptera*, *Vitex altissima*, *Wrightia tinctoria*, *Xanthophyllum affine*.

Notes: (1) Wood 1969c: 119 (types examined), 1982b: 766 (to *Xylosandrus*).

References: (bv) Choo, Woo, & Park 1985; Kovach 1986a. (cn) Anonymous 1979c, 1979i; Atkinson, Foltz, & Wilkinson 1988; Beaver 1988a: 68; Kovach 1986a; Kovach & Gorsuch 1985; Wood, S. L. 1977a: 74. (hb) Atkinson, Foltz, & Wilkinson 1988; Beaver 1988a: 68; Beaver & Browne 1978: 607; Deyrup & Atkinson 1987a: 66; Kovach 1986a; Wood, S. L. 1982b: 766; Wu, Sze-Jih Hsu, & Tou Chen 1978. (ds) Anonymous 1979c, 1979i; Atkinson, Foltz, & Wilkinson 1988; Atkinson et al. 1991: 161; Beaver 1988a: 68; Beaver & Browne 1978: 607; Chapin & Oliver 1986; Choo 1983: 98; Choo & Woo 1985: 165; Choo, Woo, & Nobuchi 1983: 172, 1988a: 134; Choo, Woo, & Park 1988;

Deyrup & Atkinson 1987a: 66, 1987b: 68; Drooz 1985: 375; Gemminger & Harold 1872: 2692; Nobuchi 1985c: 22; Nobira & Ogawa 1986; Ohno, Yoneyama, & Nakazawa 1987a: 88, 1987b: 95; Ohno, Yoshioka, Uchida, Yoneyama, & Tsukamoto 1989: 61; Samuelson 1981; Schedl 1978d: 73; Wood, S. L. 1977a: 74, 1982b: 766. (tx) Anderson, D. M. 1975; Atkinson, Foltz, & Wilkinson 1988; Choo 1983: 98; Motschulsky 1866: 403; Ohno, Yoneyama, & Nakazawa 1982b: 9; Samuelson 1981: 54; Schedl 1951k: 136; Wood, S. L. 1969c: 119, 1982b: 766; Wylie & Yule 1977.

semiopacus Eichhoff 1878b: 334 (*Xyleborus*).

Syntypes ♀; Nipon insula Japonica; Hamburg Museum, lost. Synonymy: Wood 1969c: 119.

References: (ay) Browne 1961d: 49; Entwistle 1963b; Schedl, W. 1962: 375; Van Ryn-Tournel 1975. (bv) Entwistle 1963b. (cn) Anonymous 1966j, 1970n, 1980g; Box 1953a; Brader 1964: 5; Browne 1968b: 716–717; Cachan 1958: 394; Green 1911: 2–5, 1912a: 38, 1916: 608–636; Hill, D. S. 1983: 573; Kudler 1978; Mathur & Singh 1960b: 24, 1961a: 3; Roonwal 1954: 19; Speyer 1917a: 9, 1923: 18–21; Williams, L. H. & La Fage 1979. (ec) Banno, Mikata, & Kodama 1983: 445; Norris 1979; Schedl 1962j: 189. (hb) Entwistle 1963b; Hill, D. S. 1983: 573; Pollet 1977; Schedl 1962j: 189; Speyer 1923: 18. (ds) Anderson, D. M. 1974; Anonymous 1966j, 1980g; Beeson 1930: 257; Bhasin, Roonwal, & Singh 1958; Blandford 1894c: 579; Browne 1961c: 102, 1963a: 238–242, 1968: 716; Cole 1971: 65; Eggers 1941b: 222; Green 1912a: 38; Hagedorn 1910d: 110; Hill, D. S. 1983: 573, 1987: 341; Kalshoven 1924: 6–25, 1951: 851; Kleine 1913b: 162, 1914b: 260, 280, 1928: 307, 1934a: 175; Ko 1969: 286; Mathur & Singh 1960b: 24, 1961a: 3; Miwa 1931: 269; Muraleedharan & Kandasamy 1981; Murayama 1953a: 17, 1954b: 182, 204, 1961: 103; Nakane et al. 1963: 384; Nobuchi 1967: 13–14, 23, 1978a: 24; Nobuchi & Ono 1973: 182; Nonveiller 1984: 42; Nunberg 1961b: 610, 1968a: 272; Pollet 1977; Roberts 1960: 36–38; Roonwal 1954: 19; Schedl 1934f: 1646, 1959a: 496, 1960e: 173, 1962b: 185, 1962j: 189, 1964c: 305, 1964f: 618, 1965e: 355, 1966b: 69, 1966c: 228, 1966g: 30, 1967e: 219, 1969a: 208, 1969c: 54, 1969d: 8, 1970d: 234, 1971a: 279, 1971g: 193, 1973b: 211, 1973c: 379, 1975a: 451, 1975c: 383, 1975e: 451, 1975j: 294, 1977b: 141, 1979b: 416; Tymelak 1977; Yin & Huang 1981: 566. (tx) Beeson 1915: 297, 1916a: 221–223, 1923: 165, 1929: 236, 1930: 257; Blandford 1894c: 579, 1894d: 101–123, 1896b: 211, 1898a: 424; Eggers 1923a: 130, 1925: 153, 1927b: 400, 407, 1939c: 114, 1941b: 222; Eichhoff 1878b: 334; Green 1912a: 38–39; Hagedorn 1909: 733, 1910a: 96, 156, 1913: 15; Murayama 1936: 144–150, 1953a: 17, 1954b: 186; Motschulsky

- 1866: 403; Nakane et al. 1963: 384; Nobuchi 1978a: pl. 2, 1983: 303; Sampson 1914: 386; Schedl 1931c: 340, 1934f: 1646, 1935f: 271–272, 1941d: 380, 1951j: 20, 1953d: 70, 1955b: 272, 1959a: 496, 1960e: 173, 1962h: 60, 1962j: 189–190, 1962k: 1102, 1962n: 697, 1977b: 140–141; Schreiner 1882: 248; Wood, S. L. 1969c: 119; Yin & Huang 1981: 566; Yin, Huang, & Li 1984: 170.
- semitigranosis* Blandford 1896b: 211 (*Xyleborus*). Holotype ♀; Sumatra; BMNH, London. Synonymy: Schedl 1959a: 496.
- References: (ay) Gardner 1934b: 1–17. (bv) Beeson 1917. (cn) Anonymous 1953h: 31, 1953j: 25; Gadd 1943: 32–36; Holmes 1947: 3, 109; Kalshoven 1924c: 1–27, 1951: 851; Kleine 1932a: 307; Mathur, Chatterjee, & Thapa 1965: 16; Mathur & Singh 1960b: 10, 1960c: 8, 1961a: 5, 1961b: 14; Ramachandra Rao 1928: 1–30, 1936: 35–45; Roonwal 1954: 45; Roonwal, Chatterjee, & Thapa 1961b: 7; Speyer 1917a: 8–9; Stebbing 1914: 589; Webb & Jones 1957: 25–44, 1958: 383; Yunus & Hua 1980: 230. (ec) Anonymous 1953j: 25; Beeson 1923; Bhatia 1950; Browne 1958b; Cachan 1957: 43–53; Chatterjee & Chatterjee 1951; Schedl 1958d: 192; Stebbing 1914: 589. (hb) Beeson 1915b: 8–11, 1916a: 1–5, 1917, 1923, 1929: 236, 1938: 293–294; Browne 1958b: 164–182; Chatterjee & Chatterjee 1951; Jones, Roberts, & Baker 1959: 13–67; Kalshoven 1924c, 1951: 851, 1958a: 187, 1959c: 145; Kleine 1932a: 307; Schedl 1958d: 192; Stebbing 1914: 589; Thompson, C. H. 1963: 72. (ds) Beeson 1915b: 297, 1916a: 221, 1923, 1929: 236, 1930: 255–257, 1938b: 293–294, 1941: 395, 401–402; Bhasin, Roonwal, & Singh 1958: 61, 98, 111; Bhatia 1950; Blandford 1898a; Browne 1961c: 102, 1961e: 10, 13; Chatterjee & Chatterjee 1951; Dupont 1916, 1917: 20–22; Green 1916: 608–636; Hagedorn 1910d: 110; Holmes 1947: 109; Kalshoven 1958a: 187, 1959c: 145; Kleine 1913b: 162, 1914b: 268, 274, 1932a: 307, 1934a: 175; Mathur & Singh 1960b: 10, 1960c: 8, 1961a: 5, 1961b: 14; Mayne & Donis 1960: 104; Murayama 1936b: 115; Numberg 1961a: 331; Roberts 1960b: 36, 1960e, 1960f, 1961: 53–60, 1969: 133; Roonwal 1954: 45–87; Roonwal, Chatterjee, & Thapa 1961b: 7; Sampson 1914: 386; Schedl 1931c: 347, 1936j: 30; Thomas, R. T. S. 1960a, 1960b: 77; Thompson, C. H. 1963: 72; Van Zwaluwenburg 1956: 9; Wichmann 1954: 502, 521–522, 1955: 97; Wood, S. L. 1957e: 1273, 1960a: 51; Yunus & Hua 1980: 230. (tx) Beeson 1929, 1930: 255–257; Blandford 1896b: 211; Browne 1948: 908; Eggers 1923a: 130, 1925: 153, 1927b: 400–401, 1936d: 626; Gardner 1934b: 15–16; Hagedorn 1910a: 156; Sampson 1914: 386; Schedl 1936: 30, 1939c: 330, 1940b: 435, 1941d: 380, 1942a: 171, 1942d: 37, 1950e: 211, 1951e: 38, 1951i: 43–50, 1951j: 20, 1951k: 137, 1953b: 124, 1953d: 70, 1953f: 83, 1954a: 142, 1954d: 872, 1954e: 54–72, 1955d: 272, 1957d: 84, 1959a: 496, 1961e: 128, 1962b: 185–186, 1962j: 190; Stebbing 1914: 589; Wood, S. L. 1960a: 51, 56–57.
- ebriosus* Niisima 1909: 154 (*Xyleborus*). Holotype ♀; Sapporo, Japan; Nobuchi Collection, Ibaraki. Synonymy: Choo 1983: 98.
- References: (ay) Murayama 1933a: 7. (cn) Murayama 1954a: 14. (ec) Inouye et al. 1955: 94. (hb) Inouye et al. 1955: 94. (ds) Kleine 1913b: 161, 1914b: 260, 1934a: 172; Murayama 1929b: 2, 1930b: 20, 1931a: 43, 1933b: 7, 1934d: 508, 1936b: 114, 1937b: 375, 1949c: 102, 1950b: 1296, 1951a: 6, 1953a: 18, 1953c: 145, 157, 1954a: 14, 1954b: 177, 1955: 100, 102, 104. (tx) Hagedorn 1910a: 153; Murayama 1930b: 20–31, 1931a: 43–44, 1933a: 7, 19, 1934c: 299, 1937b: 375, 1950b: 1296, 1953a: 18, 1954b: 177, 1955: 100, 102, 104; Niisima 1909: 154; Schedl 1934f: 1646.
- bengalensis* Stebbing 1908: 12 (*Dryocoetes*). Syntypes ♀; Goalpara, Assam; FRI, Dehra Dun. Synonymy: Beeson 1915: 297.
- References: (cn) Pierce, W. D. 1917: 193; Stebbing 1914: 590. (ec) Stebbing 1914: 590. (hb) Stebbing 1914: 590. (ds) Kleine 1914b: 270; Pierce, W. D. 1917: 193. (tx) Beeson 1915: 297, 1929: 236, 1935: 294; Hagedorn 1910a: 96; Schedl 1959a: 496, 1962j: 190; Stebbing 1908b: 12, 1914: 590; Wood, S. L. 1960: 57.
- mascarenius* Hagedorn 1908: 379 (*Xyleborus*). Syntypes ♀; Mauritius, and Bomole et Amani in Deutsch-Ostafrika: most lost with Hamburg Museum, 1 in Schedl Collection in NHMW, Wien. Synonymy: Eggers 1923a: 130.
- Notes: (1) Schedl 1979c: 149 (citation of holotype invalid).
- References: (cn) Sallenave 1948: 437. (ec) Sallenave 1948: 437. (ds) Beeson 1938: 294; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 323. (tx) Beeson 1929: 236; Eggers 1923a: 130, 1925: 153, 1927b: 400; Hagedorn 1908: 379, 1909a, 1910a: 155; Kalshoven 1959: 145; Numberg 1956a: 145; Schedl 1948c: 665, 1959a: 496, 1962j: 190, 332, 1979c: 149; Wood, S. L. 1960: 57.
- okounneensis* Schedl 1935f: 271 (*Xyleborus*). Syntypes ♀; imported Okounne logs, Carlshafen, Hessen-Nassau [Germany]; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1959a: 496.
- Notes: (1) Schedl 1979c: 177 (citation of holotype invalid).
- References: (ec) Wichmann 1955a: 97. (ds) Wichmann 1955a: 97. (tx) Schedl 1935f: 271–272, 1950e: 209, 1959a: 496, 1962j: 190, 1979c: 177.
- declivigranulatus* Schedl 1936j: 30 (*Xyleborus*).

Lectotype ♀; Selangor, Malay Peninsula; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 76. Synonymy: Schedl 1959a: 496.

References: **(cn)** Browne 1935b, 1949e: 907, 1950a: 167–168, 1951: 98; Hill, D. S. 1983: 543; Mathur & Singh 1961b: 94; Sivaram 1980: 58; Yunus & Hua 1980: 230. **(cc)** Browne 1958b: 83. **(hb)** Browne 1936a: 122, 1958b: 83, 1961c: 102; Hill, D. S. 1983: 543. **(ds)** Browne 1936a: 122, 1941: 67, 1961c: 102; Hill, D. S. 1983: 543; Mathur & Singh 1961b: 94; Nunberg 1961b: 610; Schedl 1936j: 30; Yunus & Hua 1980: 230. **(tx)** Browne 1949b: 907, 1949e: 174–189, 1950a: 167–168; Schedl 1936j: 30–31, 1939e: 330, 1959a: 496, 1962j: 190, 1962n: 697, 1979c: 76.

curtulus (Eichhoff) 1869a: 281 (*Xyleborus*). Holotype ♀; Brazil; IRSNB, Brussels.

Figures: Atkinson et al. 1986: 71.

Distribution: Antilles Islands (Guadeloupe), North America (Guatemala/ Honduras/ Colima, Nayarit, Oaxaca, San Luis Potosi, Veracruz in Mexico), South America (Brazil/ Colombia/ Venezuela).

Hosts: *Ficus* spp., *Phoradendron* spp., *Serjania* sp. Notes: (3) It is possible that *zimmermanni* Hopkins is also a synonym.

References: **(cc)** Equihua & Atkinson 1986: 630. **(hb)** Equihua & Atkinson 1986: 630. **(ds)** Atkinson & Equihua 1985: 102; Atkinson et al. 1986: 62; Blackwelder 1947: 779; Equihua & Atkinson 1986: 630; Estrada & Atkinson 1988: 208; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 101; Kleine 1913b: 160; Wood, S. L. 1982b: 770. **(tx)** Atkinson et al. 1986: 71; Eichhoff 1869a: 280–281, 1875: 201, 1878b: 329; Hagedorn 1910a: 153; Wood, S. L. 1973c: 187, 1982b: 770.

curtuloides Eggers 1941a: 102 (*Xyleborus*). Holotype ♀; Guadeloupe (Gourbeyre); Eggers Collection (not listed by Anderson & Anderson 1971 or Schedl 1979c). Synonymy: Wood 1982b: 770.

Notes: (1) Schedl 1979c: 72 (cites cotypes, but holotype not seen).

References: **(ds)** Bright 1985c: 174. **(tx)** Bright 1985c: 174; Eggers 1941a: 102; Schedl 1964k: 213, 1979c: 72; Wood, S. L. 1982b: 770.

biseriatus Schedl 1963d: 226 (*Xyleborus*). Holotype ♀; Nova Teutonia, Santa Catarina, Brazil; Schedl Collection in NHMW, Wien. Synonymy: Wood 1973c: 187.

References: **(ds)** Pedrosa-Macedo & Schonherr 1985: 26. **(tx)** Pedrosa-Macedo & Schonherr 1985: 26; de Ruelle 1970: 114; Schedl 1963d: 226, 1964k: 213, 1979c: 41; Wood, S. L. 1966b: 33, 1973c: 187.

strumosus Schedl 1972g: 73. Holotype ♀; Brasilien, Corcovado, Guanabara; Schedl Col-

lection in NHMW, Wien. Synonymy: Wood 1992:(in press).

References: **(ds)** Schedl 1972g: 73, 1976a: 53. **(tx)** Schedl 1972g: 73, 1979c: 239; Wood, S. L. 1992:(in press).

cylindrotomicus (Schedl) 1939f: 40 (*Pseudoxyleborus*). Lectotype ♀; Sumatra, Benkoelen; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 74.

Figures: Nunberg 1963b:pl. 30, figs. 3–6, Schedl 1962j: 575.

Distribution: Africa (Zaire), Indonesia (Sumatra).

Hosts: *Albizzia gummiifera*, *Eugenia caryophyllata*, *Khinedoxa gabonensis* var. *oblongifolia*.

References: **(hb)** Kalshoven 1959c: 162. **(ds)** Kalshoven 1959c: 162. **(tx)** Kalshoven 1959c: 95, 1960d; Schedl 1939f: 40, 1942d: 6, 1951i: 79, 1959a: 511, 1979c: 74.

semitruncatus Schedl 1942d: 35 (*Xyleborus*).

Lectotype ♀; Sumatra, Manna; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 224. Synonymy: Wood 1989: 177.

References: **(tx)** Schedl 1942d: 35, 1951i: 79, 1979c: 224; Wood, S. L. 1989: 177.

truncatellus Schedl 1951i: 79 (*Xyleborus*). Lectotype ♀; Z. Sumatra, Poelau Pisang, and Manna; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 256. Synonymy: Kalshoven 1959b: 95.

Notes: Schedl 1979c: 138 (citation of holotype invalid).

References: **(tx)** Kalshoven 1959b: 95–96; Nunberg 1963b: 60; de Ruelle 1970: 115; Schedl 1951i: 79, 1954a: 1979c: 138.

jucundus Schedl 1954a: 138 (*Xyleborus*). Lectotype ♀; Z. Sumatra, Poelau Pisang, and Manna; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 256, automatic. Synonymy: Kalshoven 1959b: 95.

Notes: (1) This is an unneeded replacement name for *truncatellus*.

References: **(tx)** Kalshoven 1959b: 95; Schedl 1954a: 138, 1979c: 256.

ramulorum Schedl 1957d: 115 (*Xyleborus*). Holotype ♀; Congo Belge; Yangambi; MRCB, Ter-vuren. Synonymy: Wood 1989: 177.

References: **(hb)** Schedl 1962j: 575. **(ds)** Schedl 1962j: 575. **(tx)** Browne 1965a: 204; Nunberg 1963b: 47–48; Schedl 1957d: 113–115, 1962j: 575, 1979c: 210; Wood, S. L. 1989: 177.

derupteterminatus (Schedl) 1951i: 64 (*Xyleborus*).

Holotype ♀; Java, Mount Gede; Schedl Collection in NHMW, Wien.

Figures: Nobuchi 1978a:pl. 1.

Distribution: Indonesia (Java).

Notes: (1) Schedl 1964k: 213 (to *Xylosandrus*).

References: **(ds)** Nobuchi 1978a: 12; Ohno, Yoneyama, & Nakazawa 1982a: 4. **(tx)** Nobuchi 1978a: pl. 1; Schedl 1951i: 64, 1964k: 213, 1979c: 78.

deruptulus (Schedl) 1942d: 37 (*Xyleborus*). Lectotype ♀; Java, Mount Dede, 800 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 78.

Distribution: Indonesia (Java).

Notes: (1) Schedl 1964k: 213 (to *Xylosandrus*).

References: (tx) Schedl 1942d: 37, 1953f: 82, 1964k: 213, 1979c: 78.

difficilis (Eggers) 1923a: 174 (*Xyleborus*). Lectotype ♀; Java: USNM, Washington, designated by Anderson & Anderson 1971: 12.

Distribution: Asia (Assam, Bengal in India/ Malaya/ Vietnam), Indonesia (Borneo, Celebes, Java, Sumatra), Cook Islands (?Rarotonga), Fiji Islands.

Hosts: *Amoora rohituka*, *Artocarpus elasticus*, *Beilschmiedia* sp., *Dipterocarpus kunstleri*, *Gmelina arborea*, *Macaranga* sp., *Shorea leprosula*, *S. macroptera*, *S. ovalis*, *Xanthophyllum* spp.

Notes: (1) Browne 1963c: 55 (to *Xylosandrus*).

References: (cn) Browne 1952; Mathur & Singh 1960b: 17. (cc) Kalshoven 1960b; Roberts 1977a: 269. (hb) Browne 1961c: 165–166; Kalshoven 1959c: 161, 1960a: 120; Roberts 1977a: 269. (ds) Beeson 1930: 232; Browne 1961c: 166, 1974a: 66, 1983a: 555; Kalshoven 1959c: 161; Mathur & Singh 1960b: 17; Ohno, Yoshioka, Yoneyama, & Nakazawa 1988a: 92, 1989: 61; Roberts 1977a: 269. (tx) Anderson, W. H., & Anderson 1971: 11–12; Beeson 1930: 232; Browne 1963c: 55; Eggers 1923a: 174–175, 1941a: 102; Nunberg 1959a: 423; Schedl 1942a: 179, 1942d: 29, 37, 1950f: 39, 1951i: 42, 1954a: 141, 1965g: 24, 1979c: 80.

discolor (Blandford) 1898a: 429 (*Xyleborus*). Holotype ♀; Ceylon; BMNH, London.

Figures: Yin, Huang, & Li 1984: 180.

Distribution: Asia (Burma/ Fujian, Guangdong, Sichuan, Yunnan in China/ Andaman Islands, Assam, Tamil Nadu, Uttar Pradesh in India/ Sri Lanka), Indonesia (Java).

Hosts: *Ailanthus altissima*, *Albizia* sp., *Camellia sinensis*, *Cassia multijuga*, *Castanopsis fargesii*, *Cedrela toona*, *Chloroxylon swietenia*, *Coffea arabica*, *C. robusta*, *C. spp.*, *Cinnamomum camphora*, *Grevillia robusta*, *Hevea brasiliensis*, *Juglans nigra*, *Machilus odoratissimus*, *M. thunbergii*, *Mangifera indica*, *Pterospermum acerifolium*, *Rhus chinensis*, *Sophora japonica*, *Swietenia mahagoni*, *Tephrosia candida*, *Terminalia myriocarpa*, *T. procera*, *Theobroma cacao*, *Vitis vinifera*.

References: (ay) Gardner 1934b: 1–17. (cn) Browne 1968b: 720; Chatterjee 1917b: 1–4; Frolich & Rodewald 1969: 99; Green 1912a: 39; Janaki et al. 1958: 138; Kalshoven 1932: 244, 1951: 851; Kleine 1932a: 307; Light 1928: 25–34; Mathur & Singh 1960a: 13, 1960b: 24, 1961a: 80, 1961b: 21; Muthukrishnan et al. 1959: 364; Pasquier 1932:

223–253; Roonwal 1954: 48; Stebbing 1914: 587; Ultee 1931: 1–55. (cc) Stebbing 1914: 587. (hb) Beaver & Browne 1975: 302; Browne 1961c: 169, 1968b: 720; Kalshoven 1951: 851, 1959c: 160; Kleine 1932a: 307; Speyer 1923: 20; Stebbing 1914: 587. (ds) Beaver & Browne 1975: 302; Beeson 1930: 232–233; Bhasin, Roonwal, & Singh 1958; Browne 1961c: 169, 1968b: 720; Green 1911: 2–5, 1912a: 39, 1916: 608–636; Hagedorn 1910d: 101; Kalshoven 1932: 244, 1959c: 160; Kleine 1913b: 160, 1914b: 274, 1932a: 307, 1934a: 173; LePelley 1968: 145; Mathur & Singh 1960a: 13, 1960b: 24, 1961a: 80, 1961b: 21; Nobuchi 1967: 21, 1979a: 406; Roba 1935: 340; Roonwal 1954: 48; Schedl 1959a: 496, 1961c: 71, 1971a: 277; Yin, Huang, & Li 1984: 180. (tx) Beeson 1930: 232–233; Blandford 1898a: 429; Browne 1963c: 55; Eggers 1923a: 174, 190, 1925: 153, 1927: 407, 1930d: 186, 1939c: 119, 1941b: 224; Gardner 1934b; Green 1912a: 39; Hagedorn 1910a: 153; Nobuchi 1983: 304; Nunberg 1959a: 424; Schedl 1942d: 4, 1951i: 63–64, 1954a: 141, 1958a: 148–149, 1958k: 149, 1959a: 496; Stebbing 1914: 587; Yin, Huang, & Li 1984: 180.

diversepilosus (Eggers) 1941b: 224 (*Xyleborus*). Holotype ♀; China, Prov. Fukien (Kuatun, 2300 m); Alexander Koenig Museum, Bonn.

Distribution: Asia (Fujian in China).

Notes: (1) Browne 1963c: 55 (to *Xylosandrus*).

References: (tx) Browne 1963c: 55; Eggers 1941b: 224.

eupatorii (Eggers) 1940d: 140 (*Xyleborus*). Holotype ♀; Java (Tjibodas, G. Gedeh); Kalshoven Collection.

Distribution: Indonesia (Java).

Hosts: *Eupatorium tjboureum*.

Notes: (1) Schedl 1964k: 213 (to *Xylosandrus*).

References: (tx) Eggers 1940d: 140–141; Schedl 1951i: 63, 1964k: 213, 1979c: 92.

ferinus (Schedl) 1936j: 31 (*Xyleborus*). Lectotype ♀; India: Travancore Mt. Estate, Tamil Nadu; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 96.

Distribution: Asia (Tamil Nadu in India).

Hosts: Red gum.

References: (ds) Schedl 1936j: 31. (tx) Browne 1963c: 55; Schedl 1936j: 31–32, 1979c: 95–96.

fijianus (Schedl) 1938f: 50 (*Xyleborus*). Lectotypes ♀; Fiji Islands, Taverne Quilai; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 96.

Figures: Nunberg 1968a: pl. 1.

Distribution: Fiji Islands.

References: (cn) Anonymous 1985; Browne 1968b: 715; Ebeling 1959. (cc) Roberts 1977a: 257. (hb) Browne 1968b: 715; Roberts 1977a: 257. (ds) Browne 1968b: 715, 1974a: 65; Ebeling 1959; Lever 1943a: 82; Roberts 1977a: 257; Schedl 1962i: 75. (tx) Nunberg 1968a: 273, pl. 1; Schedl

1938f: 50–51, 1942c: 163, 1950f: 40, 1955b: 284–285, 1979c: 96.

germanus (Blandford) 1894d: 106 (*Xyleborus*).
Synatypes 16, sex?; Oyayama, Nikko, Subashiri, Kiga, Niyanashita; BMNH, London.

Figures: Balachowsky 1963a: 1286, Grune 1979: 158, Nakane et al. 1963: pl. 192, Nobuchi 1966d: pl. 3, 1978a: pl. 1, 1981e: figs. 5–7, Postner 1974: 468.

Distribution: Asia (Ahnai, Fujian, Shanxi, Xizang [Tibet], Yunnan in China/ Japan/ Korea/ Ryukyu Islands/ Taiwan/ Vietnam), Europe (introduced: Austria/ France/ Germany/ Yugoslavia), North America (introduced: Ontario in Canada/ Connecticut, Illinois, Indiana, Kentucky, New Jersey, New York, North Carolina, Ohio, Pennsylvania, West Virginia in USA).

Hosts: *Abies fabri*, *Acer* spp., *Alnus* sp., *Carpinus laxiflora*, *Carya* sp., *Cassia siamea*, *Castanea crenata*, *Castanopsis* sp., *Chamaecyparis obtusa*, *Cleyera japonica*, *Cornus florida*, *Diospyros kaki*, *Fagus multinervis*, *F. sylvatica*, *Fraxinus* spp., *Juglans* sp., *Myrica* sp., *Lindera erythrocarpa*, *Liriodendron tulipifera*, *Machilus* sp., *Morus* spp., *Nyssa aquatica*, *Pinus* sp., *Prunus* spp., *Pyrus* sp., *Rhus chinensis*, *Quercus* spp., *Schinus superba*, *Styrax japonicus*, *Taxodium distichum*, *Ulmus* spp., *Vitis* sp., *Ziziphus jujuba*.

Notes: (1) Hoffman 1941: 38 (to *Xylosandrus*).

References: (ay) Finnegan 1963: 137; Fisher 1954; Francke-Grosman 1956a, 1956b, 1956c, 1957; Lhoste & Roche 1960; Murayama 1933a: 2; Schneider 1976; Takagi & Kaneko 1965b, 1965c, 1966; Takenouchi & Takagi 1967. (bv) Choo, Woo, & Park 1988; Dethier 1947; Grune 1979: 159; Klimetzek et al. 1986: 270; Maksymov 1987; Moeck 1970b: 992; Rafes 1966: 69; Ueno 1960; Weber & McPherson 1984a, 1985. (cn) Anderson, R. F. 1948; Anderson, R. L. & Hoffard 1978; Androic 1966: 46; Anonymous 1964h, 1965g, 1968g, 1968k, 1969h, 1972f, 1973g, 1975c, 1978c, 1979n, 1980g; Blackman 1950; Bohm 1958; Browne 1952; Buchanan 1940: 819–820, 1941: 367–369; Clausen 1931; Collins 1941: 370–371; Cranham 1966c; Dehnert 1968; Felt 1932: 8, 80, 393, 418; Felt & Bromley 1937a: 20; Fisher, Thompson, & Webb 1953; Gabler 1955; Gauss 1960: 168–172; Groschke 1952b, 1954a; Heidenreich 1960a: 5–10, 1960b: 187–188, 1964: 131; Inouye 1955; Jones & Moses 1943: 79–85; Kamp 1953: 242, 1194, 1954: 5; Kaneko 1967; MacNay 1956: 109; Maksymov 1987; Murayama 1954a: 13; Ohnesorge 1955: 280; Rodary 1959: 850; Schimitschek 1955a: 136, 1955c: 84; Schwerdtfeger 1957a: 190; Shiraki 1952; Strong 1937: 21; Takagi & Kaneko 1965a: 54, 1965b: 247, 1966: 4, 1966: 29–31; Uchida et al. 1958: 181; Ueno 1960; Weber, B. C. 1984; Weber, B. C. & McPherson 1984a; Weise 1963; Wichmann 1955b: 250–251,

1957a: 82–84; Williams, L. H. & LaFage 1979: 426; Wood, S. L. 1977a: 74. (cc) Anderson, R. L. & Hoffard 1978; Baker, W. L. 1972: 271; Banno, Mikata, & Kodama 1983: 445; Batra 1963b: 217; Buchanan 1940a: 819–820, 1941; Dorsey & Leach 1956: 224; Drooz 1985: 374; Finnegan 1963: 137; Fisher 1954; Francke-Grosman 1956a, 1956b, 1956c, 1957, 1959: 141; Heidenreich 1964; Inouye et al. 1955: 96; Kaneko 1967; Kaneko & Takagi 1965, 1966b; Kaneko, Tamaki, & Takagi 1965a, 1965b; Kessler 1974; Nishiguchi 1959: 271; Norris 1979; Rodary 1959: 850; Schimitschek 1955a: 136; Schneider 1976; Schwerdtfeger 1957a: 190; Steinhaus 1946: 405; Takagi & Kaneko 1965b, 1965c; Weber, B. C. & McPherson 1983b, 1984a, 1984b, 1985; Wichmann 1955a: 95, 103; Yoon et al. 1982. (hb) Anderson, R. F. 1948; Annala 1971: 12; Atkins 1968: 1116; Baker, W. L. 1972: 271; Balachowsky 1963a: 1285; Blackman 1950; Buchanan 1940a: 819–820, 1941; Cairaschi & d'Agilar 1957; Chamberlin 1939: 456; Cranham 1966c; Dehnert 1968; Deyrup & Atkinson 1987a: 66; Fisher 1954; Gabler 1955; Gauss 1960; Groschke 1952a, 1952b, 1953a: 2–12; Hoffmann 1941: 38–42; Inouye et al. 1955: 96; Kaneko 1965: 211, 1967: 19–21; Kaneko & Takagi 1965, 1966b: 173–176; Kaneko, Tamaki, & Takagi 1965a, 1965b: 23; Krivolutsкая 1965: 342, 1973; Maksymov 1987; Murayama 1965; Ohnesorge 1955: 280; Postner 1974: 468; Schimitschek 1955a: 136; Schneider & Farrier 1969: 412–415; Schwerdtfeger 1957a: 190, 1981: 196; Takahashi 1989: 403; Ueno 1960: 168; Weber, B. C. & McPherson 1983b; Wood, S. L. 1982b: 768; Yoon et al. 1982. (ds) Androic 1966: 46; Anonymous 1964h, 1965g, 1968g, 1969h, 1975c, 1978c, 1979n, 1980g; Arsenescu 1961; Blackman 1950; Blackwelder & Blackwelder 1948; Blandford 1894c; Bohm 1958; Bright 1968b: 1293, 1988b; Browne 1968a: 132–133; Chamberlin 1939: 456; Chapin & Oliver 1986; Cho 1957, 1963; Choo 1983: 99; Choo & Woo 1985: 165; Choo, Woo, & Nobuchi 1983: 173, 1988a: 134; Choo, Woo, & Park 1988; Clausen 1931; Deyrup 1981b: 7; Deyrup & Atkinson 1987a: 66; Drooz 1985: 374; Felt 1932; Felt & Bromley 1937a; Grune 1979: 159; Hagedorn 1910d: 105; Hoffmann 1940: 61, 1942: 13; Horion 1954b: 21; Kamp 1954: 124, 1963: 125, 1979; Kaston 1938: 240; Kleime 1913b: 161, 1914b: 260, 1934a: 173; Kono 1938b: 65, 72; Krivolutsкая 1965a: 342, 1973; Lucht 1987: 280; MacNay 1956: 109; Murayama 1929b: 2, 1930b: 20, 1931a: 45, 1936a: 132, 1936b: 114, 1942a: 56, 1949c: 103, 1950b: 1296, 1951a: 6, 1952a: 23, 1953a: 19, 1953c: 145, 158, 1954a: 13, 1954b: 178, 1955: 102, 104; Nakane et al. 1963: 384; Nobuchi 1966d: 25, 1967: 21, 1978a: 11, 1985c: 23; Nohira & Ogawa 1986; Pfeffer 1989a: 87; Postner 1974: 463; Sawamoto 1940a: 96, 107; Schedl 1960: 172, 1966g: 30, 1981b: 98; Schneider & Farrier 1969;

- Schwerdtfeger 1981: 196; Shiraki 1952; Sonan 1933: 257–270; Staines 1984; Umnov 1956: 46–50; Weber, B. C. 1979; Weber, B. C. & McPherson 1982, 1983c, 1991: 49; Weise 1963; Wichmann 1955a: 95, 103, 1955b: 250, 1957a: 82; Wood, S. L. 1977a: 74, 1982b: 768; Yin & Huang 1981: 568; Yin, Huang, & Li 1984: 168. **(tx)** Balachowsky 1963a: 1286; Blandford 1894d: 106; Bright 1968b: 1293; Chamberlin 1939: 456; Choo 1983: 99; Eggers 1926b: 145–146, 1941b: 222; Gabler 1955; Groschke 1952a, 1953a; Grune 1979: 158–159; Hagedorn 1910a: 154; Lucht 1987: 280; Maksymov 1987; Murayama 1930b: 20, 22, 24, 31, 1931a: 45–46, 1933a: 2, 1934c: 299, 1936a: 132–133, 1950b: 1296, 1952a: 23, 1953a: 19, 1954b: 178 1955: 102, 104; Nakane et al. 1963: 384; Niisima 1909: 153, 157, 1910a: 3, 13, 1913a: 5; Nobuchi 1964: 129–134, 1966d: 25, pl. 3, 1978a: pl. 1, 1981e: figs. 5–7; Pfeffer 1955a: 194; Postner 1974: 468; Savamoto 1940: 96, 107; Schedl 1934f: 1646, 1955d: 273, 1955h: 45, 1979c: 103, 1981b: 98; Schimitschek 1955c: 84; Wood, S. L. 1982b: 768; Yin & Huang 1981: 568; Yin, Huang, & Li 1984: 168. **(ms)** Thalenhorst 1962: 347; Weber, B. C. & McPherson 1983a.
- orbatus** Blandford 1894d: 123 (*Xyleborus*). Holotype ♂; Kurigabara, Japan; BMNH, London. Synonymy: Choo 1983: 100.
- References: **(ds)** Hagedorn 1910d: 108; Kleine 1913b: 162, 1914b: 260; Murayama 1954b: 181. **(tx)** Choo 1983: 100; Hagedorn 1910a: 155; Murayama 1954: 181; Schedl 1934f: 1646.
- gravidus** (Blandford) 1898a: 427 (*Xyleborus*). Holotype ♀; Chittagong Hills [Bangladesh]; BMNH, London.
- Figures: Kumar & Chandra 1977: 42 (male).
- Distribution: Asia (Bangladesh/ Burma/ Xizang [Tibet] in China/ Assam, Bengal in India/ Laos/ Sri Lanka/ Thailand/ Tonkin in Vietnam).
- Hosts: *Buchanania lanzon*, *Cinnamomum cecidodaphne*, *Shorea bracteolata*, *Swietenia macrophylla*, *S. mahagoni*, *Tectona grandis*, *Vatica lanceaefolia*.
- Notes: (3) Kumar & Chandra 1977: 34 (described male).
- References: **(cn)** Browne 1968b: 716; Hagedorn 1913a; Mathur & Singh 1961a: 38, 1961b: 14; Stebbing 1914: 586. **(ce)** Stebbing 1914: 586. **(hb)** Browne 1968b: 716; Hagedorn 1913a; Stebbing 1914: 586. **(ds)** Beaver & Browne 1975: 298; Beeson 1930; Bhasin, Roonwal, & Singh 1958; Browne 1968b: 716, 1980a: 371; Hagedorn 1910d: 105, 1913a; Kleine 1913b: 161, 1914b: 270, 1934a: 173; Mathur & Singh 1961a: 38, 1961b: 371; Schedl 1937f: 15, 1962i: 185, 1971c: 363, 1971f: 149, 1974c: 262. **(tx)** Beeson 1930: 237; Blandford 1898: 427; Eggers 1930d: 185; Hagedorn 1910a: 154; Kumar & Chandra 1977: 34, 42; Schedl 1937f: 15–17; Stebbing 1914: 586.
- hirsutipennis** (Schedl) 1961e: 144 (*Xyleborus*). Holotype ♀; Madagascar, Perinet, Montagne d'Ambre, Antaniditra; IRSM, Madagascar.
- Distribution: Madagascar.
- Hosts: *Cassipourea* sp., *Ficus sorocoides* var. *macrophlebia*, *Harungana madagascariensis*, *Psychotia* sp., *Urophyllum lyallii*, *Vernonia* sp.
- References: **(ds)** Schedl 1977b: 139. **(tx)** Schedl 1961e: 144, 1977b: 139.
- jaintianus** (Schedl) 1967f: 161 (*Xyleborus*). Holotype ♀; Shillong, Assam; Schedl Collection in NHMW, Wien.
- Distribution: Asia (Burma/ Assam in India).
- References: **(tx)** Schedl 1967f: 161, 1979c: 129.
- laticeps** (Wood) 1977b: 219 (*Xyleborus*). Holotype ♀; 20 km SW El Vigia, Merida, Venezuela; Wood Collection.
- Distribution: South America (Venezuela).
- Hosts: *Dendropanax arboreum*, *Inga* sp., *Jacaranda* sp., *Melicoccus bijugata*, *Protium tenuifolium*, *Spondias mombin*, *Theobroma cacao*.
- References: **(tx)** Wood, S. L. 1977b: 219.
- mancus** (Blandford) 1898a: 428 (*Xyleborus*). Holotype ♀; Ceylon; BMNH, London.
- Figures: Hin & Huang 1981: 568; Yin, Huang, & Li 1984: 179.
- Distribution: Africa (Mauritania/ Seychelles Islands/ Tanzania), Asia (Gansu, Xizang [Tibet] in China/ Maharashtra, Tamil Nadu in India/ Japan/ Malaya/ Sri Lanka/ Taiwan/ Vietnam), Indonesia (Java, Sumatra), Madagascar, Philippine Islands.
- Hosts: Many listed by Schedl 1962j: 573–574. *Adenanthera pavonina*, *Aphanamixia rohituka*, *Artocarpus dadah*, *Brackenridgea hookeri*, *Buchanania lanzan*, *Cordia dichotoma*, *Dryobalanops oblongifolia*, *Gomphia serrata*, *Grewia paniculata*, *Hibiscus macrophyllus*, *Hopea beccariana*, *H. ferrea*, *Hullettia dumosa*, *Litsa megacarpa*, *Melanorrhoea* sp., *Nephelium lappaceum*, *Pometia pinnata*, *Quercus* sp., *Shorea bracteolata*, *S. leprosula*, *S. macroptera*, *S. sumatrana*, *Styrax benzoin*, *Swietenia macrophylla*, *S. mahagoni*, *Theobroma cacao*, *Tristania whitcana*, *Vateria copallifera*, *Vitex pubescens*.
- References: **(cn)** Beaver 1988a: 63; Browne 1938b; Green 1912: 39; Kleine 1932a: 307; Mathur & Singh 1960a: 22, 1960b: 48, 1961a: 40, 1961b: 48; McIntosh 1949: 46; Stebbing 1914: 587; Yunus & Hua 1980: 230. **(ce)** Stebbing 1914: 587. **(hb)** Beaver 1988a: 63; Beaver & Browne 1978: 609; Browne 1935a: 4, 1938a: 27, 1938b: 83–84, 1941: 63, 67, 1958b: 164–182, 1961c: 157–159; Kalshoven 1959c: 159; Kleine 1932a: 307; Schedl 1962j: 571; Stebbing 1914: 587. **(ds)** Beaver 1988a: 63; Beaver & Browne 1978: 609; Beeson 1930, 1941: 393; Bhasin, Roonwal, & Singh 1958: 41; Browne 1938a: 27, 1938b: 83–84, 1941: 63, 67, 1961c: 157, 1981a: 126; Corbett 1935: 43–56; Corbett & Gater 1926: 22; Hagedorn 1910d: 106; Kalshoven

- 1959c: 159; Kleine 1913b: 161, 1914b: 274, 1932a: 307, 1934a: 174; Mathur & Singh 1960a: 22, 1960b: 48, 1961a: 40, 1961b: 48; Nobuchi 1979a: 406; Nunberg 1959: 424, 1961b: 611; Sampson 1914: 388; Schedl 1936j: 19, 1959a: 510, 1962j: 571, 1966b: 59, 1969d: 8, 1971a: 281, 1973c: 379, 1975j: 291; Speyer 1923: 21; Wichmann 1954: 521; Yin & Huang 1981: 567; Yunus & Hua 1980: 230. **(tx)** Beeson 1930: 245; Blandford 1898a: 428; Eggers 1923a: 169, 1927b: 407, 1930d: 186, 1939c: 114, 1939e: 332; Hagedorn 1910a: 155, 1913a: 15, 1913b: 257; Nobuchi 1967: 13–14, 21, 1983: 303; Sampson 1914: 388; Schedl 1934: 86, 1936h: 61, 1936j: 19, 1938h: 463, 1939e: 332, 1942a: 164, 170, 1942d: 6, 1951i: 51, 1952b: 364, 1952c: 61–62, 1953d: 70, 1958k: 149, 1959a: 510, 1962j: 571–574, 1969d: 8, 11, 1977b: 192, 1979c: 147; Stebbing 1914: 587.
- abruptus* Sampson 1914: 388 (*Xyleborus*). Syn-types ♀; Seychelles, Mahe: high forest of Morne Blanc, and Cascade Estate; BMNH, London. Synonymy: Schedl 1951i: 51. References: **(cn)** Dupont 1916, 1917: 20–22; Miller, N. C. E. 1941: 10. **(ds)** Kleine 1934a: 171; Mathur & Singh 1961a: 78; Sampson 1914: 388; Schedl 1969d: 11. **(tx)** Eggers 1927b: 407; Sampson 1914: 388; Schedl 1934d: 86, 1936h: 61, 1939e: 332, 1942a: 170, 1942d: 6, 1951i: 51, 1962j: 571.
- manicus formosanus* Eggers 1930: 186 (*Xyleborus*). Holotype ♀; Formosa: Taihoku; FRI, Dehra Dun. Synonymy: Schedl 1952c: 61. References: **(ds)** Yin & Huang 1981: 567; Yin, Huang, & Li 1984: 179. **(tx)** Eggers 1930d: 186, 1939c: 114; Nunberg 1959a: 424; Schedl 1938h: 463, 1952c: 61; Yin & Huang 1981: 568, 609; Yin, Huang, & Li 1984: 179.
- mediocris* (Schedl) 1942a: 185 (*Xyleborus*). Lectotype ♀; Malaya, N.S. Pasoh Forest Reserve; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 150. Distribution: Asia (Malaya). Hosts: *Dipterocarpus cornutus*, *Shorea dasphylla*. References: **(hb)** Browne 1961c: 169. **(ds)** Browne 1949b, 1961c: 169. **(tx)** Browne 1949b, 1963c: 55; Schedl 1942a: 185, 1951i: 58, 1958b: 101, 1979c: 150.
- mesuae* (Eggers) 1930d: 182 (*Xyleborus*). Holotype ♀; Bengal (Kalimpong); FRI, Dehra Dun. Distribution: Asia (Bengal, Uttar Pradesh in India/ Sri Lanka). Hosts: *Mesua ferrea*, *Osbeckia aspera*, *Shorea robusta*. Notes: (1) Browne 1963c: 55 (to *Xylosandrus*). References: **(ds)** Beeson 1930; Kleine 1934a: 174; Schedl 1959a: 495, 1971a: 281. **(tx)** Beeson 1930: 69–70, 245; Browne 1963c: 55; Eggers 1930d: 182–183, 1940d: 142; Schedl 1942a: 185, 1957d: 86, 1959a: 495, 1979c: 152.
- metagermanus* (Schedl) 1951i: 58 (*Xyleborus*). Holotype ♀; U. Dihing Res., Lakhimpur, Assam; Schedl Collection in NHMW, Wien. Distribution: Asia (Assam in India). Hosts: *Gmelina arborea*. Notes: (1) Browne 1963c: 55 (to *Xylosandrus*). References: **(tx)** Browne 1963c: 55; Schedl 1951i: 58, 63, 1979c: 152.
- morigerus* (Blandford) 1894b: 264 (*Xyleborus*). Syntypes ♀; probably New Guinea; BMNH, London. Figures: Balachowsky 1963a: 1285–1286, Samuelson 1981: 54, Schedl 1962j: 111, Wood 1960a: 53. Distribution: Africa (Mauritius Islands/ Zaire), Antilles Islands (Puerto Rico), Asia (Bengal, Tamil Nadu in India/ Jordan/ Lebanon/ Malaya/ Sri Lanka/ Taiwan/ Tonkin Island in Vietnam, Vietnam), Australia (Queensland), Europe (introduced: Austria/ Czechoslovakia/ England/ France/ Italy), Fiji Islands, Hawaiian Islands, Indonesia (Borneo, Celebes, Java, Sumatra), Madagascar, Micronesia (Caroline Islands, Timor in Mariana Islands), North America (introduced: Costa Rica/ Honduras/ Chiapas, Veracruz in Mexico/ Panama, intercepted in USA ports), New Britain Island, New Guinea, Philippine Islands, Samoan Islands, South America (introduced: Brazil/ Colombia/ Venezuela). Hosts: Many listed by Beaver 1976b: 543, Schedl 1962j: 124–130. *Acalypha* sp., *Actinophora fragrans*, *Adenanthera pavonina*, *Albizzia falcata*, *A. procera*, *Altingia excelsa*, *Amonum* sp., *Bixa orellana*, *Boehmeria* sp., *Bridelia* sp., *Butea monosperma*, *Calamus* sp., *Camellia sinensis*, *Cassia multijuga*, *Castanea argentea*, *Centrosema plumieri*, *Cinchona* sp., *Claoxylon polot*, *Coffea excelsa*, *C. liberica*, *C. robusta*, *Cola acuminata*, *Crotalaria anagyroides*, *C. usaramoensis*, *Dalbergia latifolia*, *Dendrobium phalaenopsis*, *Derris microphylla*, *Erythroxylon novagranatense*, *Eugenia polyantha*, *Eupatorium pallescens*, *Eusideroxylon zwageri*, *Ficus* sp., *Flemingia strobilifera*, *Fuchsia* sp., *Grewia laevigata*, *Leucaena glauca*, *Marumia muscosa*, *Ochroma lagopus*, *Persea gratissima*, *Sambucus javanica*, *Schleichera oleosa*, *Swietenia macrophylla*, *S. mahagoni*, *Tarenna incerta*, *Tectona grandis*, *Tephrosia maxima*, *T. vogelii*, *Thea sinensis*, *Theobroma cacao*. Notes: (1) Reitter 1913a: 83 (to *Xylosandrus*). References: **(bv)** Betrem 1951: 281; Gray, B. 1974c; Grune 1979: 159; Nakayama & Terra 1986. **(cn)** Altona 1926: 31; Anonymous 1919b: 194; Arens 1915: 9; Arreola Vazquez 1980: 71; Auhmann 1911: 438; Barkneyer 1927; Beaver 1988a: 68; Begemann 1926, 1927a, 1927b, 1927c, 1928; Benavides 1961; Betrem 1930c, 1930d, 1930e, 1931b, 1931c, 1931d, 1931e, 1932a, 1932b, 1932d, 1932e, 1933, 1934, 1935a, 1938, 1953;

- Bleij 1907: 703; Browne 1968: 721; Cramer 1908, 1913; Frohlich & Rodewald 1969: 99; Garretsen 1926: 130–136; Ghesquiere 1933a; Grandi 1951; Green 1912: 89; Hall 1912, 1913, 1915, 1916, 1922, 1923, 1924, 1925, 1926; Hill, D. S. 1983: 496; Hunger 1907: 28, 1908: 35–131; Jacob 1931: 1193; Kalshoven 1924: 9, 1925: 5–7, 1926a: 61–66, 118–120, 1928: 609, 1932: 243, 1933: 5, 1934: 13–14, 1951: 847, 1961a: 133, 1961b; Koningsberger 1901: 94–95, 1908: 76, 1915; Lang 1909: 986; Lavabre 1962: 41; Leefmans 1923: 49, 1924: 224, 1927: 28, 1928; LePelley 1968: 143; Marchal 1909: 227–228; Mathur & Singh 1960a: 13, 1960b: 43, 1961a: 29, 1961b: 14; Morstatt 1911: 384, 1937: 23; Murillo Quinche 1959: 295; Neger 1911: 50; Pirone, Dodge, & Rickett 1960: 515; Pring 1944: 103–104; Rodary 1959: 852; Roepke 1911: 2, 11, 1914: 18, 1915, 1916; Rutgers 1914: 21, 23; Schedl 1962j: 111; Speyer 1923; Trojer & Gomez 1965: 12–30; Ultee 1925: 21, 1927, 1928; Van der Goot 1928: 59; Verbeck 1930a: 402; Wigman 1909: 564–565; Wood, S. L. 1977a: 74; Wurth 1907: 58, 68, 1908: 708, 719, 1909: 548, 1910: 101, 1916, 1921; Yunus & Hua 1980: 231; Zimmermann 1898: 43–44, 1899: 32. **(ec)** Beaver 1979: 298; Benavides 1961; Betrem 1935a, 1951: 278, 1953, 1959; Browne 1958b; Domenichini 1960; Kalshoven 1960b: 259, 1960c, 1962a: 17; Norris 1979; Roberts 1977a: 269; Rodary 1959: 852; Talhouk 1961: 218; Thompson, W. R. 1943: 117; Wichmann 1955a: 98. **(hb)** Balachowsky 1963a: 1285; Beaver 1976b: 298, 1988a: 68; Beaver & Browne 1978: 614; Beeson 1929; Benavides 1961; Betrem 1951: 278; Blandford 1894b: 264; Browne 1958b, 1961c: 166, 1968b: 721; Chobant 1897b: 261–264; Duport 1909: 282–283, 1915; Grandi 1951; Gray, B. 1974c; Hill, D. S. 1983: 496, 1987: 339; Kalshoven 1951: 847, 1958a: 187, 1959a: 224, 1959c: 162, 1961a: 133, 1961b, 1962: 17; Klinkhamer 1925: 1380; Lengerken 1954: 324; LePelley 1968: 143; Murillo Quinche 1959: 295; Pring 1944: 103; Roberts 1977a: 269; Rutherford 1914c: 131–132, 1914d: 2, 7; Schedl 1962j: 111–130; Speyer 1923: 17; Weele 1910: 1; Wood, S. L. 1982b: 765. **(ds)** Anonymous 1919b: 194, 1971x; Atkinson & Equihua 1985b: 237, 1986a: 422, 1988: 102; Balachowsky 1963a: 1285; Beaver 1976b: 543, 1987b: 65, 1988a: 68; Beaver & Browne 1978: 614; Beeson 1929, 1930: 249, 1938b; Begemann 1927a; Bhasin, Roonwal, & Singh 1958; Blandford 1894b: 264, 1896f: 243, 1897b; Brakman 1966b: 205; Bright 1981c: 157, 1985c: 174; Brimblecombe 1953: 29; Browne 1958: 164–182, 1961c: 166, 1968: 721, 1972: 30, 1974a: 66, 1980a: 371, 1986a: 90; Costa Lima 1922: 34–35, 1925: 16; Donisthorpe 1931: 174; Drooz 1985: 375; Estrada & Atkinson 1988: 208; Everts 1922: 648; Fullaway 1935: 48; Ghesquiere 1933a; Grune 1979: 159; Hagedorn 1910d: 107, 1910e: 1; Hill, D. S. 1983: 496; Hoffmann 1936: 3; Kalshoven 1932: 243, 1933: 5, 1935a: 13, 1958a: 187, 1959c: 162, 1961b, 1962a: 17; Kleine 1913b: 162, 1914b: 296, 1928: 306–307, 1934a: 172, 174; LePelley 1968: 143; Lepesme et al. 1948: 648; Lucht 1987: 280; Mathur & Singh 1960a: 13, 1960b: 43, 1961a: 29, 1961b: 14; Menzel 1929: 29; Murayama 1936b: 115; Murayama & Kalshoven 1962; Neubauer 1959: 94; Nobuchi 1967: 21; Numberg 1958a: 481, 1961b: 610; Ohno et al. 1988a: 92; Reitter 1916: 295; Roba 1935: 340; Roberts 1977a: 269; Sainte-Claire & Mequignon 1938: 449; Samuelson 1981: 58; Schedl 1936g: 528, 1938d: 451, 1959a: 495, 1962j: 111–130, 1964d, 1966b: 77, 1966f: 76, 1969d: 11, 1971a: 281, 1981b: 97; Scheerpeltz & Winkler 1934f: 257; Schilsky 1909: 189; Spletz 1935: 6, 108, 1945: 352; Szent-Ivany 1963: 42; Talhouk 1961: 218; Terra 1987: 20; Velez 1972; Wichmann 1927a: 80, 1955a: 98–99; Wood, S. L. 1960a: 51, 1961c: 2, 1977a: 74, 1982b: 765; Yunus & Hua 1980: 231. **(tx)** Balachowsky 1949a: 219, 1963a: 1285, 1286; Beeson 1929: 233–234, 1930: 249, 1938: 293; Blandford 1894b: 264; Bright 1985c: 174; Browne 1963c: 55; Eggers 1922: 87, 1923a: 174, 1927b: 407, 1930d: 182, 1939c: 114, 1940d: 140; Fleischer 1927; Grune 1979: 159; Hagedorn 1910a: 155, 1912a, 1912b, 1913a, 1913b; Kalshoven 1959a: 224, 1961a: 133, 1961b; Lucht 1987: 280; Muskus, A. 1984: 94; Nobuchi 1983: 304; Numberg 1958a: 481, 1961b: 610; Portevin 1935: 331; Reitter 1913a: 80, 83–84, 1916: 295; de Ruette 1970: 115; Samuelson 1981: 54, 58; Schedl 1931c: 347, 1934f: 1646, 1936g: 528, 1942a: 185, 1942c: 163, 1942d: 4, 1950f: 39, 1951i: 42, 1951k: 136, 1954a: 142, 1954c: 154, 1955b: 281, 1958b: 101, 1959a: 495, 1961f: 91, 1962j: 111–130, 1964d: 212, 1980a: 20, 1981b: 97; Strohmeier 1910f: 186; Terra 1987: 20; Wood, S. L. 1960a: 51, 53, 1974d: 287, 1982b: 765.
- coffea* Wurth 1908: 199 (*Xyleborus*). Syntypes ♀; Java: not located. Synonymy: Strohmeier 1910f: 86, Schedl 1951k: 136.
- References: **(ay)** Herfs 1949: 26. **(bv)** Aulmann 1911. **(cn)** Azavedo 1924: 180–181; Begemann 1927: 1–21; Duport 1911, 1913, 1915; Frappa 1931; Hagedorn 1913a; Hall 1916, 1918, 1919, 1920, 1921, 1922: 27, 1923b: 24, 1926: 14, 26, 1932: 265; Havard-Dukos 1928; Herfs 1949: 26; Hutton 1924: 91; Jepson 1920: 280–289; Kalshoven 1924c, 1925b: 5, 1926a: 61, 1953b: 157, 1958c: 220, 1961a: 133; Kleine 1932a: 306; Leefmans 1919: 1–8; Luzzau 1953: 21; Mathur & Singh 1960a: 62; Morstatt 1911b: 384, 1937: 26; Pierce, W. D. 1917: 62; Roepke 1909: 365, 1910: 91, 1915, 1916; Rutherford 1914c: 131–132; Strohmeier 1910f: 186; Vayssiere 1923: 111; Wurth 1910: 101, 1919; Wyniger 1962a: 27, 1962b: 70. **(cc)** Neger 1911a: 53; Thompson, W. R. 1943: 117. **(hb)** Aulmann 1911; Duport 1911; Evans 1952: 141; Hagedorn 1913a; Herfs 1949: 26;

Kalshoven 1924c, 1961a: 133; Kleine 1932a: 306; Morstatt 1924: 17. (**ds**) Beeson 1938: 293; Evans 1952: 141; Hagedorn 1910d: 100, 1912: 36–39, 1913a: Kalshoven 1925b: 5, 1958c: 220, 1961b; Kleine 1913b: 160, 1914b: 279, 288, 314, 1932a: 306, 1934a: 172; Koningsberger 1905: 76; Mathur & Singh 1960a: 15; Pierce, W. D. 1917: 62; Roba 1935: 340; Schedl 1935d: 451; Sprecher 1934: 150; Strohmeier 1910f: 186; Swezey 1945: 359; Vayssiere 1923: 111. (**tx**) Aulmann 1911; Browne 1963c: 55; Eggers 1922a: 87, 1923a: 130, 174, 190, 1930d: 182; Hagedorn 1910a: 153, 1912a, 1912b; Kalshoven 1961a: 133, 1961b; Lucas 1920: 674; Numberg 1959a: 420; Schedl 1931c: 346, 1951k: 136, 1954a: 140, 1959a: 495, 1962j: 111; Strohmeier 1910f: 86; Weele 1910: 308; Wurth 1905: 63–78, 199, 1910: 101–105. (**ms**) Lucas 1920: 674.

luzonicus Eggers 1923a: 174 (*Xyleborus*). Lectotype ♀; Mt. Makiling, Insel Luzon, Philipinen; USNM, Washington, designated by Anderson & Anderson 1971: 18. Synonymy: Wood 1974d: 287.

References: (**ds**) Schedl 1966b: 77; Swezey 1945: 353. (**tx**) Anderson, W. H. & Anderson 1971: 18; Browne 1963c: 55; Eggers 1923a: 174; Nobuchi 1983: 304; Schedl 1961f: 91, 1979c: 143; Wood, S. L. 1974d: 287.

mutilatus (Blandford) 1894d: 103 (*Xyleborus*). Holotype ♀; Japan: BMNH, London.

Figures: Nakane et al. 1963: pl. 192, Nobuchi & Takahashi 1965: 1–2, Yin, Huang, & Li 1984: 181. Distribution: Asia (Burma/ Anhei, Sichuan, Yunnan, Zhejiang in China/ Andaman Islands, Assam in India/ Japan/ Korea/ Malaya/ Sri Lanka/ Taiwan/ Thailand), Indonesia (Batoe, Borneo, Java, Sumatra), New Guinea.

Hosts: *Acer* sp., *Albizia* sp., *Benzoin* sp., *Camellia* sp., *Carpinus laxiflora*, *Castanea* sp., *Cinnamomum camphora*, *Cornus* sp., *Cryptomeria japonica*, *Fagus crenata*, *Lindera erythrocarpa*, *Machilus thunbergii*, *Ormosia hosiei*, *Osmanthus fragrans*, *Parabezoia praecox*, *Platycarya* sp., *Swietenia macrophylla*.

Notes: (3) Schedl 1962j: 208 (*phila* Hagedorn, nomen nudum, cited as a synonym).

References: (**cn**) Anonymous 1980g; Ebeling 1959; Mathur & Singh 1961a: 79; Murayama 1954a: 16; Shiraki 1952. (**cc**) Banno, Mikata, & Kodama 1983: 445; Browne 1958b; Inouye et al. 1955: 100. (**hb**) Beaver & Browne 1975: 299; Browne 1958b; Inouye et al. 1955: 100; Kalshoven 1959c: 162. (**ds**) Anonymous 1980g; Beaver & Browne 1975: 299; Blandford 1894c: 579; Cho 1957, 1963; Choo 1983: 101; Choo & Woo 1985: 166; Choo, Woo, & Nobuchi 1988a: 134; Ebeling 1959; Hagedorn 1910d: 56, 107; Kalshoven 1959c: 162; Kleine 1913b: 128, 162, 1914b: 260, 273, 1934a: 174; Ko

1969: 285; Lacordaire 1866: 353; Mathur & Singh 1961a: 79; Murayama 1929b: 2, 1930b: 19, 1931a: 41, 1934d: 510, 1937b: 375, 1950b: 1297, 1953a: 20, 1953c: 159, 1954a: 16, 1954b: 180; Nakane et al. 1963: 383; Nobuchi 1967: 22; Nobuchi & Takahashi 1965: 1; Nohira & Ogawa 1986; Sampson 1921: 28; Schedl 1971f: 149; Shiraki 1952; Yin, Huang, & Li 1984: 181. (**tx**) Blandford 1894d: 103; Browne 1955: 353; Choo 1983: 101; Eggers 1939c: 118; Ferrari 1867a: 74; Hagedorn 1910a: 105, 155; Kalshoven 1960d: 63; Lacordaire 1866: 383; Motschulsky 1863: 514; Murayama 1930b: 19–31, 1931a: 41, 1934c: 300, 1937b: 375, 1950b: 1297, 1952a: 23, 1953a: 20, 1954b: 180; Nakane et al. 1963: 383, pl. 192; Niisima 1909: 152–154; Nobuchi & Takahashi 1965: 1–2, 1983: 303; Sampson 1921: 28; Schedl 1934f: 1646, 1962p: 208, 1972q: 255–267; Yin, Huang, & Li 1984: 181. (**ms**) Mastumura 1973.

sampsoni Eggers 1930d: 184 (*Xyleborus*). Holotype ♀; Assam (Haflong, Cachar); FRI, Dehra Dun. Synonymy: Wood 1989: 177.

References: (**tx**) Eggers 1930d: 184–185; Wood, S. L. 1989: 177.

banjoewangi Schedl 1939f: 41 (*Xyleborus*). Lectotype ♀; Banjoewangi, 270 m, Tjoerahlele; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 33. Synonymy: Kalshoven 1960d: 63.

References: (**tx**) Kalshoven 1960d: 63; Schedl 1939f: 40, 1940b: 435, 1951i: 85, 1979c: 33.

taitonus Eggers 1939c: 118 (*Xyleborus*). Holotype ♀; Formosa, Taito; Chujo Collection.

Notes: (1) Specimens in the FRI, Dehra Dun labeled by Eggers as *taitonus* are *mutilatus*; synonymy needs confirmation.

References: (**ds**) Nobuchi 1967: 23. (**tx**) Eggers 1939c: 118.

nanus (Blandford) 1896f: 242 (*Xyleborus*). Holotype ♀; Nommea (Delaume); BMNH, London. Distribution: New Caledonia.

Notes: (1) Browne 1963c: 55 (to *Xylosandrus*).

References: (**ds**) Beeson 1938b: 293; Hagedorn 1910d: 107; Kleine 1913b: 162, 1914b: 301. (**tx**) Blandford 1896f: 242; Browne 1955: 353, 1963c: 55; Eggers 1923a: 174; Hagedorn 1910a: 155.

omissus (Schedl) 1961e: 153 (*Xyleborus*). Holotype ♀; Madagascar, Antaniditra pres Perinet; IRSM, Madagascar.

Distribution: Madagascar.

Hosts: *Eugenia* sp.

Notes: (1) Generic position uncertain, either *Amasa* or *Xylosandrus*.

References: (**ds**) Schedl 1977b: 194. (**tx**) Schedl 1961e: 153, 1977b: 194, 1979c: 178.

oralis (Schedl) 1961e: 164 (*Xyleborus*). Holotype ♀; Madagascar, Antaniditra pres Perinet; IRSM, Madagascar.

Distribution: Madagascar.

Notes: (1) Generic position uncertain, either *Amasa* or *Xylosandrus*.

Hosts: *Eugenia* sp.

References: (ds) Schedl 1977b: 194. (tx) Schedl 1961e: 164, 1977b: 194, 1979c: 180.

orbiculatus (Schedl) 1942a: 186 (*Xyleborus*). Holotype ♀; Borneo; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Borneo).

References: (hb) Browne 1961c: 106. (tx) Schedl 1942a: 186, 1951i: 51, 1955b: 298, 1979c: 180.

posticestriatus (Eggers) 1939c: 119 (*Xyleborus*). Lectotype ♀; Formosa (Taihoku); USNM, Washington, designated by Anderson & Anderson 1971: 26.

Distribution: Asia (Malaya/ Sri Lanka/ Taiwan), Micronesia.

Notes: (1) Nunberg 1959a: 434 (to *Xylosandrus*).

References: (ds) Schedl 1975j: 294. (tx) Anderson, W. H. & Anderson 1971: 26; Eggers 1939c: 119; Nunberg 1959a: 434; Schedl 1942d: 4, 1951i: 63, 1954a: 142, 1958k: 149, 1959a: 496, 1979c: 198.

pseudosolidus (Schedl) 1936g: 530 (*Xyleborus*). Lectotype ♀; Tasmania, and New South Wales: Dorriggo, Narara; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 202.

Distribution: Australia (New South Wales, Queensland, Tasmania), New Zealand.

Hosts: *Araucaria cunninghami*, *Malus sylvestris*, *Mangifera indica*, *Prunus* spp.

References: (ds) Hardy, E. J. et al. 1971; Hardy, R. J. et al. 1982; Martyn et al. 1970: 4, 1975: 9; Schedl 1936g: 530, 1959d: 67. (tx) Schedl 1936g: 530, 1955b: 278, 1959d: 67, 1979c: 202.

pusillus (Schedl) 1961f: 91 (*Xyleborus*). Holotype ♀; Luzon, Rizal, Mt. Irid; Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands (Luzon).

Notes: (1) Schedl 1964k: 213 (to *Xylosandrus*).

References: (ds) Schedl 1966b: 78. (tx) Nobuchi 1983: 303; Schedl 1961f: 91, 1964k: 213, 1979c: 206.

pygmaeus (Eggers) 1940d: 142 (*Xyleborus*). Holotype ♀; Ost-Java (Alas Tbedek); Kalshoven Collection.

Distribution: Asia (Malaya/ Sri Lanka), Indonesia (Java).

Hosts: *Litsea amara*, *Vitex pubescens*.

References: (cn) Vayssiere 1923: 111. (hb) Browne 1961c: 169; Kalshoven 1959c: 147. (ds) Browne 1961c: 169; Kalshoven 1959c: 147; Schedl 1971a: 277; Vayssiere 1923: 111. (tx) Browne 1963c: 55; Eggers 1940d: 142; Schedl 1955b: 101, 1958k: 145, 1979c: 207.

retusus (Eichhoff) 1868c: 151 (*Xyleborus*). Syn-types ♀; N. Freiburg [Brazil]; Hamburg Museum, lost.

Figures: Pedrosa-Macedo & Schonherr 1985: 36.

Distribution: South America (Argentina/ Brazil). Hosts: *Bauhinia* sp., *Cedrela fissilis*, *Coffea* spp., *Cratylia floribunda*, *Nectandra* sp.

References: (hb) Beaver 1976a: 25; Moreira 1928: 24–25; Viana 1964: 124. (ds) Beaver 1976a: 25; Blackwelder 1947: 780; Gemminger & Harold 1872: 2686; Hagedorn 1910d: 110; Kleine 1913b: 162, 1934a: 174; Pedrosa-Macedo & Schonherr 1985: 36; Roba 1935: 340; Santoro 1957b: 25; Schedl 1966f: 89, 1970e: 84, 1971f: 149, 1972g: 45, 1973d: 159, 1976a: 55; Schonherr & Pedrosa-Macedo 1981: 56; Viana 1964: 124. (tx) Eichhoff 1868c: 151, 1878b: 316; Hagedorn 1908, 1910a: 156; Nunberg 1959a: 435; Pedrosa-Macedo & Schonherr 1985: 36; Schedl 1948d: 37, 1951h: 285.

solidus (Eichhoff) 1868c: 151 (*Xyleborus*). Holotype ♀; Neu-Holland; Hamburg Museum, lost. Figures: Schedl 1972a: 148 (male).

Distribution: Australia (New South Wales, Queensland, Tasmania, Victoria).

Hosts: *Diploglottis australis*, *Eucalyptus* spp.

Notes: (1) Schedl 1979c: 232 (cited holotype as in Schedl Collection; if this is the holotype, then it was taken while on loan to Eggers). French 1911: pl. 1, fig. 4 (erroneously labeled this as *Apate collaris* Erichson).

References: (cn) Brimblecombe 1956; Froggatt 1900, 1907, 1924, 1927; Gurney 1915: 303–312; Jarvis 1922: 269–271, 1924: 435–438; Kleine 1932a: 306; Moore 1959: 188. (hb) Brimblecombe 1956; Froggatt 1900: 640–642, 1907, 1924, 1927; Kleine 1932a: 306. (ds) Gemminger & Harold 1872: 2686; Hagedorn 1910d: 111; Kleine 1913b: 162, 1914b: 299, 1932a: 306; Moore 1959: 188; Schedl 1936g: 529, 1936j: 31, 1959d: 67, 1965g: 25, 1972a: 144, 1979a: 159. (tx) Carne et al. 1980; Eggers 1927c: 88; Eichhoff 1868c: 151, 1878b: 518; French, C. 1911; Hagedorn 1908, 1910a: 156; Lea 1902: 221, 1904: 106; Schedl 1936g: 529, 1939j: 564, 1959d: 67, 1965g: 26, 1972a: 143–149, 1979c: 232.

squamulatus (Beaver) 1985: 69 (*Apoxyleborus*). Holotype ♀; Zambia; BMNH, London. Distribution: Africa (Zambia).

References: (tx) Beaver 1985: 69.

subsimiliformis (Eggers) 1939b: 11 (*Xyleborus*). Holotype ♀; Nordostbirma (Kaimbaiti, 7000 Fuss); NHR, Stockholm, 1 Eggers cotype in NHMW, Wien.

Distribution: Asia (Burma).

References: (tx) Eggers 1939b: 11–12; Schedl 1979c: 243.

subsimilis (Eggers) 1930d: 186 (*Xyleborus*). Holotype ♀; Assam (Shillong); FRI, Dehra Dun, 1 Eggers cotype in NHMW, Wien. Figures: Kumar & Chandra 1977: 47 (male).

Distribution: Asia (Assam, Bengal in India).

Hosts: *Cinnamomum obtusifolium*, *Tectona grandis*, *Terminalia myriocarpa*.

Notes: (3) Kumar & Chandra 1977: 36, 47 (described male).

References: **(cn)** Mathur & Singh 1961b: 14. **(ds)** Bhasin, Roonwal, & Singh 1958; Mathur & Singh 1961b: 14. **(tx)** Eggers 1930d: 156, 1939b: 11; Kumar & Chandra 1977: 36, 47; Schedl 1979c: 244.

terminatus (Eggers) 1930d: 182 (*Xyleborus*). Holotype ♀; Coorg (Virojapet, Sidapur); FRI, Dehra Dun.

Distribution: Asia (Karnataka, Maharashtra, Tamil Nadu in India).

Hosts: *Holigarn arnottiana*, *Lantana* sp., *Swietenia macrophylla*.

Notes: (1) Browne 1963c: 55 (to *Xylosandrus*).

References: **(cn)** Mathur & Singh 1960b: 55. **(ds)** Beeson 1930: 262; Mathur & Singh 1960b: 55. **(tx)** Beeson 1930: 262; Browne 1963c: 55; Eggers 1930d: 182, 1943d; Schedl 1955b: 298, 1979c: 252.

testudo (Eggers) 1939c: 116 (*Xyleborus*). Lectotype ♀; Formosa (Trichu); USNM, Washington, designated by Anderson & Anderson 1971: 34.

Distribution: Asia (Taiwan/ Vietnam).

References: **(ds)** Nobuchi 1967: 23; Schedl 1962b: 187, 1974c: 262. **(tx)** Anderson, W. H. & Anderson 1971: 34; Eggers 1939c: 116–118; Numberg 1959a: 440; Schedl 1979c: 252.

ursa (Eggers) 1923a: 172 (*Xyleborus*). Lectotype ♀; Haveri, Neu Guinea (Sudost); USNM, Washington, designated by Anderson & Anderson 1971: 35.

Distribution: Asia (Malaya), Indonesia (Celebes, Sumatra), New Guinea, Philippine Islands (Luzon), Solomon Islands.

References: **(ds)** Browne 1961c: 110, 1966: 248; Nobuchi 1979a: 407; Schedl 1936g: 528, 1966b: 75, 1969c: 156. **(tx)** Anderson, W. H. & Anderson 1971: 35; Beeson 1930: 41, 217; Eggers 1923a: 172–173, 1939b: 11; Nobuchi 1983: 304; Schedl 1936g: 528, 1940b: 434.

ursinus (Hagedorn) 1908: 381 (*Xyleborus*). Holotype ♀; Sumatra, Si-Rambe; MNB, Berlin.

Distribution: Indonesia (Borneo/ Soemba Island, Sumatra), Philippine Islands (Mindoro).

Hosts: *Theobroma cacao*.

References: **(cn)** Yunus & Hua 1980: 231. **(ds)** Hagedorn 1910d: 112; Kleine 1913b: 162, 1914b: 268; Sampson 1919: 109; Schedl 1965g: 22, 1966b: 75; Yunus & Hua 1980: 231. **(tx)** Beeson 1930: 41, 217; Eggers 1923a: 172–173, 1927b: 406, 1939b: 11; Hagedorn 1908: 381, 1910a: 157; Nobuchi 1983: 304; Numberg 1959a: 441; Sampson 1919: 109; Schedl 1965g: 22.

ursulus (Eggers) 1923a: 173 (*Xyleborus*). Syntypes ♀; Kintamani (Ost Bali, Sundainseln).

Figures: Nobuchi 1978a: pl. 2.

Distribution: Asia (Fujian in China/ Bengal, Nicobar Islands in India/ Malaya/ Thailand), Indonesia (Bali, Borneo, Java, Sumatra, Sunda Island), Philippine Islands (Luzon).

Hosts: *Celtis bizonicus*, *Ficus hainli*, *Gonostylus* sp.

References: **(hb)** Kalshoven 1959c: 143. **(ds)** Beaver & Browne 1978: 613; Browne 1961c: 110–111, 1965a: 189, 1954b: 257; Kalshoven 1959c: 143; Kleine 1934a: 176; Nobuchi 1978a: 25; Ohno, Yoneyama, & Nakazawa 1957a: 88, 1957b: 94; Ohno, Yoshioka, et al. 1989: 64; Schedl 1936d: 5, 1966b: 76, 1966g: 33, 1971c: 370, 1971f: 150. **(tx)** Eggers 1923a: 173, 1939b: 11; Nobuchi 1978a: pl. 2, 1983: 304; Schedl 1936d: 5, 1937c: 544, 1942d: 5, 1951i: 42, 91, 1954a: 144, 1965g: 24, 1979c: 261.

zimmermanni (Hopkins) 1915b: 67 (*Anisandrus*).

Holotype ♀; Biscayne, Florida [USA]; USNM, Washington.

Distribution: North America (Costa Rica/ Guatemala/ Chiapas in Mexico/ Florida in USA), South America (Venezuela).

Hosts: *Acer rubrum*, *Ardesia* sp., *Calliandra confusa*, *Chrysobalanus* sp., *Cupania guatemalensis*, *Ocotea catesbiana*.

Notes: (1) Wood 1962: 79 (to *Xylosandrus*). (3) Integration with *curtulus* is probable (SLW).

References: **(cn)** Blackman 1950. **(hb)** Blackman 1950; Chamberlin 1939: 445–446; Wood, S. L. 1982b: 769. **(ds)** Atkinson & Equihua 1985b: 237, 1986a: 422, 1988: 102; Baker, W. L. 1972: 271; Blackman 1950; Blackwelder & Blackwelder 1948; Blatchley & Leng 1916: 624; Bright 1968b: 1294; Chamberlin 1939: 445–446; Drooz 1985: 374; Leng 1920: 342; Wood, S. L. 1977a: 74, 1982b: 769. **(tx)** Blatchley & Leng 1916: 624; Bright 1968b: 1294; Chamberlin 1939: 445–446; Hopkins 1915b: 67–68; Wood, S. L. 1962: 79, 1966b: 33, 1982b: 769.

Genus *Cnestus* Sampson

CNESTUS SAMPSON 1911: 383. Type-species: *Cnestus magnus* Sampson, monobasic.

Tosaxyleborus Murayama 1950a: 49. Type-species: *Tosaxyleborus pallidipennis* Murayama = *Cnestus murayamai* Schedl, original designation. Synonymy: Browne 1955: 368.

References: **(tx)** Browne 1955: 368, 1963c: 54; Murayama 1950a: 49; Schedl 1962p: 207.

Keys: Numberg 1972a: 476.

References: **(ay)** Nobuchi 1969a: 64. **(hb)** Browne 1961c: 173; Wood, S. L. 1986a: 83. **(ds)** Schedl 1966b: 78; Wood, S. L. 1986a: 83. **(tx)** Browne 1955: 357, 1963c: 54; Choo 1983: 96; Choo, Woo, & Nobuchi 1985b; Hopkins 1915b: 10; Numberg 1972a: 476–477; Sampson 1911: 383–384; Schedl 1958k: 145, 1962p: 207; Wood, S. L. 1986a: 83.

aterrimus (Eggers) 1927b: 400 (*Xyleborus*). Holotype ♀; Sumatra; Eggers Collection, in NHMW, Wien.

Distribution: Asia (Malaya/ Thailand), Australia, Indonesia (Java, Sumatra), New Guinea.

Hosts: *Canarium littorale*, *Castanopsis sumatrana*, *Cinnamomum iners*, *Clerodendron villosum*,

- Elaeocarpus petiolatus*, *Fissistigma elegans*, *Grewia paniculata*, *Scorodocarpus borneensis*, *Shorea acuminata*, *Swietenia macrophylla*, *Vitex pubescens*. Notes: (1) Browne 1961c: 173 (to *Cnestus*). References: (cc) Browne 1958b. (hb) Beaver & Browne 1975: 287; Browne 1958b, 1961c: 173; Kalshoven 1959c: 165–166. (ds) Beaver & Browne 1975: 287, 1978: 583; Browne 1961c: 173; Kalshoven 1959c: 165–166. (tx) Browne 1961c: 173; Eggers 1927b: 400; Schedl 1951i: 61, 88, 1954a: 140, 1958k: 145, 1979c: 30.
- glaberrimus* Schedl 1942c: 184 (*Xyleborus*). Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien. Synonymy: Browne 1961c: 173. References: (ds) Schedl 1965g: 25. (tx) Browne 1961c: 173, 1973c: 173; Schedl 1942c: 184, 1965g: 25, 1979c: 105.
- glabripennis* Schedl 1942a: 189 (*Xyleborus*). Lectotype ♀; Malaya, Selangor, Ulu Gombak; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1958k: 145. References: (tx) Schedl 1942a: 189, 1951i: 61, 1958k: 145, 1979c: 106.
- nitens* Browne 1955: 358. Holotype ♀; Malay Peninsula: Selangor, Kepong; BMNH, London. Synonymy: Schedl 1958k: 145. References: (tx) Browne 1955: 358; Schedl 1958k: 145.
- bicornioides** (Schedl) 1952b: 368 (*Xyleborus*). Holotype ♀; Philippine Islands: Mindanao, Lolumbugan; Schedl Collection in NHMW, Wien. Distribution: Asia (Malaya), Philippine Islands. Hosts: *Shorea sumatrana*, *Swietenia macrophylla*. Notes: (1) Browne 1961c: 174 (to *Cnestus*). References: (hb) Browne 1961c: 174. (ds) Browne 1961c: 174; Schedl 1966b: 78. (tx) Browne 1955: 360, 1961c: 174; Nobuchi 1983: 304; Schedl 1952b: 368, 1958k: 145, 1979c: 39.
- bicornis** (Eggers) 1923a: 194 (*Xyleborus*). Syntypes 2 ♀; Niederl. Indien.; MNB, Berlin, and Eggers Collection (USNM, Washington or NHMW, Wien?). Distribution: Asia (Assam in India/ Malaya), Indonesia (Java, Sumatra), Philippine Islands. Hosts: *Altingia excelsa*, *Cinchona* sp., *Coffea robusta*, *Erythroxylon novagranatae*, *Shorea bracteolata*, *S. leprosula*, *S. ovalis*, *S. sumatrana*. References: (cn) Frohlich & Rodewald 1969: 99; Kalshoven 1951: 849; Miller 1933: 105–107, 125; Ultee 1931: 1–51. (cc) Kalshoven 1960b: 260; Norris 1979. (hb) Browne 1961c: 189; Kalshoven 1951: 849, 1959c: 164. (ds) Browne 1961c: 189; Kalshoven 1959c: 164. (tx) Eggers 1923a: 194, 1927b: 390, 1930k: 201; Nunberg 1959a: 416; Schedl 1942d: 32, 1952b: 368, 1958k: 145, 1979c: 39.
- bimaculatus** (Eggers) 1927c: 88 (*Xyleborus*). Holotype ♂; Philippines: Mindanao, Provinz Lanao, Iligan; USNM, Washington. Distribution: New Guinea, Philippine Islands (Mindanao). References: (ds) Nobuchi 1979a: 407; Schedl 1936g: 532, 1966b: 78. (tx) Anderson, W. H. & Anderson 1971: 6; Eggers 1927c: 88; Schedl 1958k: 145.
- cruralis** (Schedl) 1975e: 456 (*Xyleborus*). Holotype ♀; Siam; Schedl Collection in NHMW, Wien [probably from Eggers Collection]. Distribution: Asia (Xizang [Tibet] in China/ Andaman Islands, Bengal in India/ Thailand). Notes: (3) Schedl 1936j: 27, 1939e: 331 (*cruralis* Eggers, nomen nudum). References: (tx) Schedl 1936j: 27, 1939e: 331, 1975e: 456, 1979c: 71.
- klapperichi** (Schedl) 1955h: 46 (*Xyleborus*). Holotype ♀; Fukien: Kuatun, China; Klapperich Collection in Alexander Koenig Museum, Bonn?). Distribution: Asia (Fujian in China). References: (tx) Schedl 1955h: 46, 1960e: 172, 1979c: 133.
- maculatus** Browne 1983d: 33. Holotype ♀; China: Sichuan, Kangding; IZAS, Beijing. Distribution: Asia (Sichuan in China). References: (tx) Browne 1983d: 33.
- magnus Sampson** 1911: 383. Holotype ♀; Ceylon; BMNH, London. Distribution: Asia (Sri Lanka). Hosts: *Albizia* spp., *Chloroxylon swietenia*, *Swietenia* spp. References: (cn) Green 1912a: 39; Mathur & Singh 1961a: 79. (ds) Beeson 1961: 286; Bhasin, Roonwal, & Singh 1958; Green 1912a: 39; Mathur & Singh 1961a: 79; Schedl 1959a: 511, 1971a: 281. (tx) Browne 1955: 358–360; Green 1912a: 39; Hopkins 1914: 118–119; Sampson 1911: 383–384; Schedl 1958k: 145, 1959a: 511.
- murayamai** Schedl 1962p: 207. Holotype ♀; Japan: Isa, Shimidzu, Hata-gun, Kochi Pref., Shikoku; Murayama Collection in USNM, Washington, automatic. Figures: Nobuchi 1964: pl. 1, 1967: pl. 2. Distribution: Asia (Japan/ Ryukyu Islands/ Taiwan). Hosts: *Cinnamomum camphora*, *Machilus thunbergii*. References: (ds) Choo 1983: 96; Choo & Woo 1985: 165; Nobuchi 1967: 24, 1985c: 28. (tx) Browne 1963c: 54; Choo 1983: 96; Nobuchi 1964: 131, 1967: pl. 2; Schedl 1962p: 207.
- pallidipennis** Murayama 1950a: 49 (*Tosaxyleborus*). Holotype ♀; Japan: Isa, Shimidzu, Hata-gun, Kochi pref., Shikoku; Murayama Collection in USNM, Washington, preoccupied by Eggers 1940. References: (ds) Murayama 1952a: 120. (tx) Browne 1963c: 54; Murayama 1950a: 49, 1952: 20; Schedl 1962p: 207.
- murayamai** Browne 1963c: 54. Holotype ♀; Japan: Isa, Shimidzu, Hata-gun, Kochi pref., Shikoku; Murayama Collection in USNM, Washington, automatic.

Notes: (1) This is an unneeded replacement name for *pallidipennis* Murayama.

References: (tx) Browne 1963c: 54; Nobuchi 1964: 131; Schedl 1962p: 207.

nitidiloides (Schedl) 1951i: 89 (*Xyleborus*). Holotype ♂; Java, Batoerraden, G. Slamet; Eggers Collection, in NHMW, Wien.

Distribution: Indonesia (Java).

References: (tx) Schedl 1951i: 89, 1979c: 169.

nitidipennis (Schedl) 1951i: 88 (*Xyleborus*). Syn-types 2 ♀; Java, Batoerraden; Eggers Collection, in NHMW, Wien.

Distribution: Indonesia (Java/ Vietnam).

Hosts: *Eupatorium pallescens*.

Notes: (1) Schedl 1979c: 169 (citation of holotype invalid).

References: (hb) Kalshoven 1959c: 165. (ds) Kalshoven 1959c: 165; Nobuchi 1967: 22; Schedl 1969c: 52, 1974c: 262. (tx) Schedl 1951i: 88, 1954a: 142, 1979c: 169.

nitidus (Schedl) 1951i: 87 (*Xyleborus*). Holotype ♀; Philippinen, Luzon, Baguio; Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands (Luzon).

Hosts: *Ficus* sp.

References: (ds) Schedl 1966b: 78. (tx) Nobuchi 1983: 304; Schedl 1951i: 87, 1952b: 364, 1979c: 171.

nudus (Nunberg) 1956: 209 (*Xyleborus*). Holotype ♀; Philippinen, Luzon, Baguio; Schedl Collection in NHMW, Wien, automatic.

Distribution: Philippine Islands (Luzon).

References: (tx) Nunberg 1956: 209; Schedl 1958k: 145, 1960i: 109.

punctulatus Schedl 1951i: 61 (*Xyleborus*). Holotype ♀; Philippinen, Luzon, Baguio; Schedl Collection in NHMW, Wien, preoccupied by Kurenzov 1948.

Notes: (1) Schedl 1958k: 145 (to *Cnestus*).

References: (ds) Schedl 1966b: 78. (tx) Nobuchi 1983: 304; Nunberg 1956: 209; Schedl 1951i: 61, 1952b: 364, 1958k: 145, 1960i: 106, 109.

pallidipennis (Eggers) 1940d: 143 (*Xyleborus*). Holotype ♀; Java (Preanger, G. Tangkoeban Prahoë); Eggers Collection, in NHMW, Wien.

Distribution: Indonesia (Java).

References: (ds) Murayama 1953c, 1954b: 185. (tx) Eggers 1940d: 143–144; Murayama 1954b: 185; Schedl 1958k: 145, 1962p: 207, 1979c: 182.

protensus (Eggers) 1930d: 201 (*Xyleborus*). Holotype ♀; Assam (Shillong, 6000 feet); FRI, Dehra Dun.

Distribution: Asia (Assam in India).

References: (tx) Eggers 1930d: 201; Schedl 1942a: 172, 1952b: 368, 1958k: 145.

pseudopunctulus (Schedl) 1942a: 194 (*Xyleborus*). Syntypes ♀; Malaya, Kuala Lumpur; BMNH, London and Schedl Collection in NHMW, Wien.

Distribution: Asia (Malaya).

Notes: (1) Browne 1961c: 174 (to *Cnestus*).

References: (tx) Browne 1961c: 174; Schedl 1942a: 194, 1971c: 365.

pseudosuturalis Schedl 1964k: 315. Lectotype ♂; Tonkin, Choganh; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 202.

Distribution: Asia (Tonkin Island in Vietnam).

References: (tx) Schedl 1964k: 315, 1979c: 202.

rostratus Schedl 1977f: 502. Holotype ♀; N. Vietnam: Thai-Nguyen; Schedl Collection in NHMW, Wien.

Distribution: Asia (Vietnam).

References: (tx) Schedl 1977f: 502.

rotundatus Schedl 1975f: 357. Holotype ♀; Block 10, N.G.I. logging area, Gabensis, Morobe District, New Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

Hosts: *Dracontomelon* sp.

References: (tx) Schedl 1975f: 357.

suturalis (Eggers) 1930d: 200 (*Xyleborus*). Holotype ♀; Assam (Shillong, 6000 feet); FRI, Dehra Dun.

Distribution: Asia (Assam in India/ Malaya/ Tonkin Island in Vietnam), Indonesia (Java).

Hosts: *Acacia* sp., *Dipterocarpus* sp., *Eupatorium pallescens*, *Hopea* sp., *Melia* sp., *Piper* sp., *Shorea* sp., *Swietenia mahagoni*, *Terminalia nuyriocarpa*, *Vatica* sp.

References: (cn) Mathur & Singh 1961b: 34. (hb) Browne 1961c: 189; Kalshoven 1959c: 165. (ds) Kalshoven 1959c: 165; Schedl 1937f: 15, 1962b: 187. (tx) Eggers 1930d: 200–201, 1937f: 15–17, 1940d: 143, 1942d: 5; Mathur & Singh 1961b: 34; Schedl 1942a: 189, 1951i: 87, 1979c: 248.

triangularis (Schedl) 1975f: 370 (*Xyleborus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe Dist., New Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1975f: 370, 1979c: 255.

Genus *Xyleborinus* Reitter

XYLEBORINUS REITTER 1913a: 79, 83. Type-species: *Bostrichus saxeseni* Ratzeburg, subsequent designation by Swaine 1918a: 50.

Keys: Wood 1982b: 842 for North and Central America.

References: (ay) Francke-Grosmann 1958: 139–144. (hb) Beaver 1976a: 22; Hopping & Jenkins 1933: 14; Wood, S. L. 1982b: 841, 1986a: 84. (ds) Scheerpeltz & Winkler 1930: 258; Wood, S. L. 1982b: 841, 1986a: 84. (tx) Arnett 1960: 1045, 1968: 1045; Balachowsky 1949a: 122; Choo 1983: 113; Choo, Woo, & Nobuchi 1988b; Wood, S. L. 1982b: 841, 1986a: 84.

aduncus (Schedl) 1961e: 148 (*Xyleborus*). Holotype ♀; Madagascar, Montagne d'Ambre; IRSM, Madagascar.

Figures: Schedl 1961e: 149, 1977b: 217.

Distribution: Madagascar.

Hosts: *Cassipourea* sp., *Cinchona succerubra*, *Olea ambrensis*.

References: (ds) Schedl 1977b: 217. (tx) Schedl 1961e: 148–149, 1977b: 217–218, 1979c: 12.

aduncus profundus Schedl 1961e: 149 (*Xyleborus*). Holotype ♀; Madagascar: Ambodivanga; IRSM, Madagascar.

References: (tx) Schedl 1961e: 149, 1977b: 218, 1979c: 12.

adunculus Schedl 1961e: 150 (*Xyleborus*). Holotype ♀; Madagascar, Morafenobe, foret Mahajebby; IRSM, Madagascar.

References: (tx) Schedl 1961e: 150.

aemulus (Wollaston) 1869: 321 (*Tomicus*). Holotype ♀; St. Helena; BMNH, London.

Figures: Schedl 1962j: 531.

Distribution: Africa (South Africa), St. Helena Island.

Hosts: *Acacia karroo*, *Acalypha glabrata*, *Commidendron robustum*, *Fagara capensis*, *Gonionia camassi*, *Ocotea bullata*, *Olea capensis*, *Podocarpus falcatus*, *Quercus* sp., *Rapanea melanophloeos*, *Rhus mucronata*, *Schotia latifolia*, *Vepris undulata*, *Virgilia capensis*, *Xymalos monospora*.

References: (cn) Anonymous 1970c: 14. (ec) Walt, Scott, & Van Der Klift 1971a, 1971b: 451. (ds) Anonymous 1970c: 14; Decelle 1972a, 1972b: 517–518; Gemminger & Harold 1872: 2684; Hagedorn 1910d: 98; Kleine 1913b: 159; Schedl 1962b: 59, 1962j: 531, 1965g: 20, 1965h: 112, 1969d: 6, 1970h: 180, 1975k: 277, 1982: 279. (tx) Hagedorn 1910a: 152; Schedl 1957b: 151, 1957d: 84, 1959q: 709, 1962j: 531, 1962k: 1198, 1965g: 20; Wollaston 1869: 321.

alienus (Schedl) 1977c: 398 (*Xyleborus*). Holotype ♀; Sudafrika: Humansdorp, Kapprovinz; Schedl Collection in NHMW, Wien.

Distribution: Africa (South Africa).

References: (tx) Schedl 1977c: 398.

alni (Niisima) 1909: 160 (*Xyleborus*). Holotype ♀; Sapporo (Mitsuhashi), Tomakomai; Nobuchi Collection, Ibaraki.

Distribution: Asia (Japan/ E USSR), Europe (Czechoslovakia).

Hosts: *Ahnus* spp., *Betula japonica*, *Tilia amurensis*.

References: (cn) Kurenzov 1935c: 188. (ec) Kurenzov 1934a: 50. (hb) Kurenzov 1935a: 20, 38, 1948b: 114; Stark 1952: 438. (ds) Gemminger & Harold 1872: 2685; Kleine 1913b: 159, 1914b: 261, 1934a: 172; Kuizcek 1988; Kurenzov 1934a: 50, 1935a: 20, 38, 1935c: 188, 1936a: 109–110, 1936b: 350, 1938a: 59; Murayama 1954b: 202; Stark 1952: 438. (tx) Eggers 1933f: 53; Eichhoff 1868d: 419; Hagedorn 1910a: 152; Kurenzov

1941a: 188, 1948b: 114; Murayama 1954b: 202; Niisima 1909: 160; Schedl 1934f: 1645, 1940c: 208, 1979c: 16; Stark 1952: 438.

andrewesi (Blandford) 1896b: 227 (*Xyleborus*). Holotype ♀; India, Belgaum [Maharashtra]; BMNH, London.

Figures: Numberg 1978: 105.

Distribution: Africa (Kenya/ Seychelles Islands/ Zambia), Antilles Islands (introduced: Jamaica), Asia (Bangladesh/ Burma/ China/ Andaman Islands, Assam, Bengal, Bihar, Karnataka, Madhya Pradesh, Maharashtra, Tamil Nadu, Uttar Pradesh in India/ Japan/ Malaya/ Nepal/ Ryukyu Islands/ Sri Lanka/ Thailand/ Vietnam), Indonesia (Borneo, Java), Micronesia (Timor in Mariana Islands), New Guinea, New Zealand, Philippine Islands.

Hosts: Many listed by Browne 1961c: 120, Schedl 1962j: 486–488. *Albizzia* spp., *Anacardium* sp., *Anthocephalus* sp., *Artocarpus dadah*, *Buchanania* sp., *Canarium* sp., *Cinnamomum* sp., *Cryptocarya* sp., *Garuga* sp., *Isonandra* sp., *Mallotus* sp., *Mangifera indica*, *Myristica indica*, *Odina wodiier*, *Palaquium elliptica*, *Pterospermum* sp., *Randia* sp., *Samanea saman*, *Shorea robusta*, *Tectona grandis*.

References: (bv) Gray, B. 1974c. (cn) Beaver 1988a: 63; Chandra 1981: 287; Kalshoven 1924c; Kleine 1932a: 307; Mathur & Singh 1960b: 6, 1961a, 1961b: 13; Pierce, W. D. 1917: 193; Roonwal 1954: 45; Stebbing 1914: 593. (ec) Beeson 1923; Stebbing 1914: 593. (hb) Beaver 1988a: 63; Beaver & Browne 1975: 297, 1978: 603; Beaver & Loytyniemi 1985a: 72; Beeson 1915: 8–11, 1916a: 221, 1923; Browne 1961c: 120–122; Chandra 1981: 287; Gray, B. 1974c; Kalshoven 1924c: 6–25, 1958a: 186–189; Kleine 1932a: 307; Loytyniemi, Beaver, & Loytyniemi 1984; Schedl 1962j: 485; Stebbing 1914: 593. (ds) Beaver 1988a: 63; Beaver & Browne 1975: 297, 1978: 603; Beaver & Loytyniemi 1985a: 72; Beeson 1916a, 1923: 164, 1930: 226, 1941: 393; Bhasin, Roonwal, & Singh 1958: 41, 68; Bright 1985c: 173; Browne 1935: 3, 1941: 67, 1949: 178–189, 1961c: 120; Chandra 1981; Hagedorn 1910d: 99; Kalshoven 1958a: 186, 1959: 153; Kleine 1913b: 159, 1914b: 270, 1928: 307, 1932a: 307, 1934a: 172; Mathur & Singh 1960b: 6, 1961a: 13, 1961b: 14; Nobuchi 1979a: 406; Pierce, W. D. 1917: 193; Roonwal 1954: 45, 53, 67; Schedl 1962j: 485, 1969d: 12, 1971a: 277, 1973b: 211, 1973c: 378, 1975a, 1975c: 450, 1975j: 346, 1975j: 294; Wichmann 1954: 522; Yin, Huang, & Li 1984: 157. (tx) Beaver & Loytyniemi 1985a: 72; Beeson 1930: 226; Blandford 1896b: 227; Bright 1985c: 173; Eggers 1922b: 174, 1925: 153–154; Hagedorn 1910a: 152; Numberg 1978: 105–106; Sampson 1919: 110, 1923b: 287–288; Schedl 1939c: 332, 1942d: 7, 1962j: 485; Stebbing 1914: 593; Wood, S. L. 1989: 176; Yin, Huang, & Li 1984: 157.

- persphenos* Schedl 1970a: 219 (*Xyleborus*). Holotype ♀; New Guinea: Simbai, Madang Dist.; CSIRO, Canberra. Synonymy: Beaver & Browne 1978: 603, Wood 1989: 176.
References: (tx) Schedl 1970a: 219, 1979c: 191; Wood, S. L. 1989: 176.
- insolitus* Bright 1972d: 77 (*Xyleborus*). Holotype ♀; Irish Town, St. Andrew Parish, Jamaica; CNCI, Ottawa. Synonymy: Bright 1985: 173.
References: (tx) Bright 1972d: 77, 95, 1985: 179; McNamara 1977: 200.
- ankius* (Schedl) 1975f: 361 (*Xyleborus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe Dist. [New Guinea]; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (tx) Schedl 1975f: 361, 1979c: 21.
- armatus* (Schaufuss) 1891: 30 (*Xyleborus*). Holotype ♀; Madagascar; Hamburg Museum, lost.
Distribution: Madagascar.
References: (ds) Alluaud 1900: 440; Fairmaire 1892b; Frappa 1933: 179; Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 326; Spahr 1981; Voeltzkow 1913: 256. (tx) Eggers 1920: 44; Fairmaire 1892b; Hagedorn 1910a: 152; Keler 1928: 33; Schaufuss 1891: 30; Schedl 1953d: 102, 1977b: 197.
- artelineatus* (Beeson) 1929: 239 (*Xyleborus*). Holotype ♀; Upolu: Malololelei, Samoa; BMNH, London.
Distribution: Fiji Islands, Samoan Islands.
References: (ds) Beeson 1938b: 291; Spahr 1981. (tx) Beeson 1929: 239; Schedl 1951k: 138, 1977b: 197.
- validicornis* Schedl 1950f: 52 (*Xyleborus*). Lectotype ♀; Fiji: 2700 ft., Tholo North, west slope of Mt. Victoria, 3000 ft.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 263. Synonymy: Beaver 1991: 94.
References: (cc) Roberts 1977a: 267. (hb) Roberts 1977a: 267. (ds) Browne 1974a: 65; Roberts 1977a: 267. (tx) Beaver 1991: 94; Schedl 1950f: 52, 1979c: 263.
- artestriatus* (Eichhoff) 1878: 507 (*Xyleborus*). Holotype ♀; Asiae India orientalis; Hamburg Museum, lost.
Distribution: Asia (Burma/ Bengal, Madhya Pradesh, Uttar Pradesh in India/ Malaya/ Sri Lanka/ Vietnam), Australia (Darwin, Queensland), Bismarck Islands, Fiji Islands, Indonesia (Borneo, Java, Sumatra), New Guinea.
Hosts: *Eugenia jambolana*, *Ficus religiosa*, *Heritiera fomes*, *Juglans regia*, *Lannea grandis*, *Mallotus philippinensis*, *Mangifera indica*, *Phyllanthus emblica*, *Semecarpus anacardium*, *Shorea robusta*.
References: (bv) Gray, B. 1974c. (cn) Wylie & Shanahan 1975. (hb) Browne 1961c: 148; Gray, B. 1974c; Kalshoven 1958a: 186, 1959c: 147; Wylie & Shanahan 1975. (ds) Browne 1961c: 148, 1966: 252, 1970: 541; Hagedorn 1910d: 99; Kalshoven 1958a: 186, 1959c: 147-148; Kleine 1913b: 160, 1914b: 270; Schedl 1936d: 2, 1936g: 528, 1937j: 15-17, 1959a: 506, 1962b: 184, 1964c: 306, 1965a: 340, 1969c: 52, 1971c: 366, 1971f: 148, 1977d: 280. (tx) Beeson 1929: 240; Eggers 1923a: 196-197, 1925: 154, 1927c: 101, 1932b: 206; Eichhoff 1878b: 507; Hagedorn 1910a: 152; Schedl 1935j: 1, 1939c: 332, 1942d: 6, 1954a: 140, 1959a: 506; Wood, S. L. 1989: 176.
- laticollis* Blandford 1896b: 226 (*Xyleborus*). Holotype ♀; India, Kanara; BMNH, London. Synonymy: Schedl 1955k: 152.
References: (bv) Beeson 1917. (cn) Kleine 1932a: 307; Mathur & Singh 1961a: 32. (cc) Beeson 1923. (hb) Beeson 1915: 8-11, 1916a: 221, 1917, 1923; Chandra 1981; Kleine 1932a: 307. (ds) Beeson 1916a, 1923, 1930: 244, 1961: 306; Hagedorn 1910d: 106; Kleine 1913b: 161, 1914b: 270, 1932a: 307; Mathur & Singh 1961a: 32; Sampson 1921: 33; Schedl 1936j: 32. (tx) Beeson 1930: 244; Blandford 1896b: 226; Hagedorn 1910a: 155; Sampson 1919: 112, 1921: 32-33; Schedl 1955k: 152.
- rugipennis* Schedl 1953c: 303 (*Xyleborus*). Lectotype ♀; Malaya, Pahang, Cameron Highlands, Sinking Kial; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 216. Synonymy: Wood 1989: 176.
References: (ds) Browne 1961c: 151. (tx) Schedl 1953c: 303, 1979c: 216; Wood, S. L. 1989: 176.
- attenuatus* (Blandford) 1894d: 114 (*Xyleborus*). Holotype ♀; Nikko, Japan; BMNH, London.
Distribution: Asia (Japan/ Korea).
Hosts: *Diospyros kaki*, *Fagus crenata*, *Hamamelis japonica*, *Magnolia obovata*, *Prunus* sp., *Quercus stenophylla*.
References: (bv) Choo, Woo, & Park 1988. (cn) Murayama 1954a: 15; Shiraki 1952; Ueno 1960. (ds) Blandford 1894c; Choo 1957; Choo 1983: 105; Choo & Woo 1985: 166; Choo, Woo, & Nobuchi 1988a: 134; Choo, Woo, & Park 1988; Hagedorn 1910d: 99; Kleine 1913b: 160, 1914b: 260; Ko 1969: 284; Murayama 1929b: 2, 1937b: 375, 1949c: 102, 1953a: 16, 1953c: 156, 1954a: 15, 1954b: 175; Nobuchi 1967: 21; Shiraki 1952; Ueno 1960. (tx) Blandford 1894d: 114; Choo 1983: 105; Hagedorn 1910a: 152; Murayama 1930: 22, 26, 31, 1937b: 375, 1953a: 16, 1954b: 175; Niisima 1909: 161; Schedl 1934f: 1645.
- beaveri* Browne in Beaver & Browne 1978: 603. Holotype ♀; Malaysia: Penang; BMNH, London. Figures: Beaver & Browne 1978: 604.
Distribution: Asia (Malaya).
References: (tx) Beaver & Browne 1978: 603-605.

bicornatulus (Wood) 1967c: 137 (*Xyleborus*). Holotype ♀; Moravia, Cartago, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica/Panama), South America (Colombia).

Hosts: *Ochroma* sp., *Theobroma cacao*, palm log.

References: (hb) Wood, S. L. 1982b: 847. (ds) Wood, S. L. 1982b: 847. (tx) McNamara 1977: 200; Wood, S. L. 1967c: 137, 1982b: 847.

buscki (Hopkins) 1915b: 63 (*Xyleborus*). Holotype ♀; Guadeloupe, West Indies; USNM, Washington. Distribution: Antilles Islands (Dominica/ Guadeloupe).

Notes: (1) Bright 1981c: 156 (to *Xyleborinus*).

References: (ds) Blackwelder 1947: 779; Bright 1981c: 156, 1985c: 173. (tx) Bright 1981c: 156, 1985c: 173; Hopkins 1915b: 61–63.

celatus Wood 1974a: 43. Holotype ♀; 8 km S Colombia (near Buenaventura), Valle de Cauca, Colombia; Wood Collection.

Distribution: South America (Colombia).

Hosts: *Icica altissima*, *Iuga* sp., *Protium nervosum*.

References: (tx) Wood, S. L. 1974a: 43.

collarti (Eggers) 1932d: 300 (*Xyleborus*). Holotype ♀; Congostaat (Foret de Kawa); USNM, Washington.

Figures: Nunberg 1963b: pl. 9, figs. 5–8.

Distribution: Africa (Angola/ Cameroon/ Ghana/ Tanzania/ Zaire).

Hosts: *Acacia* sp., *Cinchona* sp., *Conopharyngia* sp., *Galiniera coffeoides*, *Haronga paniculata*, *Milletia ferruginea*, *Solanum aculeastrum*, *Syzygium congolense*, *Trichilia heudelotii*, *Turraeanthus africana*.

Notes: (3) Browne 1973a: 296 (described male).

References: (hb) Roberts 1969: 131; Schedl 1962j: 490. (ds) Ferreira 1965: 1121; Schedl 1959p: 19, 1962j: 490; Thompson, C. H. 1963: 71. (tx) Anderson, W. H. & Anderson 1971: 9; Browne 1973a: 296; Eggers 1932d: 300–301; Nunberg 1963b: 24, pl. 9; Schedl 1952j: 4, 1953g: 242, 1954e: 52, 1962j: 490, 1962k: 1099, 1979c: 60.

semipilosus Eggers 1932d: 300 (*Xyleborus*). Holotype ♀; Congostaat (Katanga: Lufudizi); MRCB, Tervuren. Synonymy: Schedl 1962q: 490.

References: (tx) Eggers 1932d: 300; Nunberg 1963b: pl. 26; Schedl 1962q: 490.

cuneidentis (Schedl) 1961e: 151 (*Xyleborus*). Holotype ♀; Madagascar, Ambodivoangy; IRSM, Madagascar.

Distribution: Madagascar.

References: (tx) Schedl 1961e: 151, 1977b: 196, 1979c: 71.

cuneolosus (Schedl) 1959a: 510 (*Xyleborus*). Holotype ♀; Ceylon: Millawitiya Estate; Schedl Collection in NHMW, Wien.

Distribution: Asia (Sri Lanka).

References: (ds) Schedl 1959a: 510. (tx) Schedl 1959a: 510, 1977b: 218, 1979c: 72.

cupulatus (Schedl) 1961e: 150 (*Xyleborus*). Holotype ♀; Madagascar, Perinet; IRSM, Madagascar. Distribution: Madagascar.

Hosts: *Calophyllum chapelieri*, *Garcinia verucosa*, *Weinmannia* sp..

References: (tx) Schedl 1961e: 150, 1977b: 218, 1979c: 72.

dentellus (Schedl) 1953d: 102 (*Xyleborus*). Lectotype ♀; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 77.

Figures: Schedl 1977b: 213.

Distribution: Madagascar.

Hosts: *Uapaca* sp.

Notes: (3) Schedl 1965c: 71 (described male).

References: (ds) Schedl 1977b: 212. (tx) Schedl 1953d: 102, 1965c: 71, 1977b: 212–213, 1979c: 77.

diapiformis (Schedl) 1961e: 155 (*Xyleborus*). Holotype ♀; Madagascar, Perinet; IRSM, Madagascar. Distribution: Madagascar.

Hosts: *Chrysophyllum boivinianum*.

References: (ds) Schedl 1977b: 207. (tx) Schedl 1961e: 155, 1977b: 207, 1979c: 80.

dirus Wood 1974a: 41. Holotype ♀; Rincon de Osa, Puntarenas, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica), South America (Colombia).

Hosts: *Cespedesia macrophylla*.

References: (hb) Wood, S. L. 1982b: 845. (ds) Wood, S. L. 1982b: 845. (tx) Wood, S. L. 1974a: 41, 1982b: 845.

diversus (Schedl) 1954e: 80 (*Xyleborus*). Lectotype ♀; Gold Coast, Bekwai; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 83. Distribution: Africa (Angola/ Fernando Poo Island/ Ghana/ Ivory Coast/ Zaire).

Hosts: *Anthocheista nobilis*, *Trichilia* sp., *Triplochiton scleroxylon*.

References: (hb) Pollet 1977; Schedl 1962j: 493. (ds) Ferreira 1965: 1122; Pollett 1977; Schedl 1959p: 20, 1962j: 493, 1971g: 193, 1972e: 283, 1979b: 416; Thompson, C. H. 1963: 71. (tx) Schedl 1954e: 52, 80, 1962j: 493, 1979c: 83.

° **excavatus (Hagedorn)** 1907b: 111 (*Xyleborus*). Syntypes 6 ♀; Madagaskarkopal; Hamburg Museum, lost.

Distribution: Madagascar (fossil in copal).

References: (ds) Begein 1907: 223; Hagedorn 1907a: 261, 1910d: 104, 1913b: 256; Kleine 1912a: 212, 1913b: 161, 1914b: 326; Schedl 1977b: 219; Spahr 1981. (tx) Hagedorn 1907b: 111, 1910a: 152–153; Keler 1928: 30; Schedl 1961e: 148, 1977b: 219, 1979c: 93.

exiguus (Walker) 1859: 260 (*Bostrichus*). Holotype ♀; Ceylon; BMNH, London.

Figures: Nobuchi 1978a: pl. 4, Wood 1960a: 58.

Distribution: Asia (Burma/ Andaman Islands, Assam, Bengal, Nicobar Islands in India/ Malaya/ Nepal/ Sri Lanka/ Thailand/ Vietnam), Fiji Islands, Indonesia (Borneo, Java, Sumatra), Micronesia (Guam, Truk in Mariana Islands, Palau Islands), New Guinea, Philippine Islands, Society Islands, Solomon Islands (Rennell Island). Hosts: *Artocarpus* sp., *Bombax malabaricum*, *Canarium euphyllum*, *Cinnamomum iners*, *Dipterocarpus zeylanicus*, *Eucalyptus deglupta*, *Hevea brasiliensis*, *Parkia speciosa*, *Pterocarpus dalbergoides*, *Quercus* sp., *Samanea saman*, *Terminalia bialata*.

References: (cn) Mathur & Singh 1960b: 43, 1961b: 28; Ranawera 1959: 78; Roonwal 1954: 85, 1959: 78. (hb) Beaver & Browne 1978: 608; Browne 1936a, 1961c: 122; Mathur & Singh 1960b: 43, 1961b: 28; Speyer 1923: 20. (ds) Beaver & Browne 1975: 298; Beeson 1930: 233–234, 1935a: 202, 1935b, 1938b: 202; Bhasin, Roonwal, & Singh 1958; Browne 1936a, 1961c: 122–123, 1966: 255–256, 1968c: 113; Eggers 1926a; Froggatt 1936; Gemminger & Harold 1872: 2690; Hagedorn 1910d: 54, 104; Kleine 1913b: 127, 161, 1914b: 273, 278, 1934a: 172; Lacordaire 1866: 383; Mathur & Singh 1960b: 43, 1961b: 28; Nobuchi 1978a: 43, 1980a; Nunberg 1964a: 236; Ohno, Yoneyama, & Nakazawa 1982a: 4, 1982b: 8, 1987a: 88, 1987b: 94; Ohno, Yoshioka, et al. 1988a: 93, 1989: 61; Roonwal 1954: 85; Schedl 1936g: 528, 1936j: 21, 1938g: 426, 1959a: 506, 1965a: 340, 1965g: 22, 1966b: 53, 1969a: 206, 1969e: 156, 1971a: 227, 1971f: 148, 1972b: 226, 1973b: 211, 1975j: 294; Thomas, R. T. S. 1960a, 1960b; Wood, S. L. 1960a: 51. (tx) Beeson 1930: 57–58, 283, 1935a: 118, 1935b; Eggers 1925: 154, 1926a: 300, 1927b: 407; Ferrari 1867: 75; Hagedorn 1910a: 154, 1910d: 104; Lacordaire 1866: 383; Motschulsky 1863: 511; Nobuchi 1978a: pl. 4, 1983: 302; Schedl 1933e: 106, 1939e: 332, 1942a: 170, 1942c: 163, 1942d: 7, 1950f: 40, 1951k: 138, 1952b: 364, 1954a: 141, 1958k: 155, 1959a: 506, 1962p: 207, 1965g: 22; Walker 1859: 260; Wood, S. L. 1960a: 51, 58–60.

muriceus Eichhoff 1878b: 506 (*Xyleborus*). Syn-types ♀; Asia India; Hamburg Museum, lost. Synonymy: Eggers 1925: 154.

References: (tx) Beeson 1935: 118; Eggers 1925: 154; Eichhoff 1878b: 506; Wood, S. L. 1960a: 60.

forcipatus (Schedl) 1957d: 104 (*Xyleborus*). Holotype ♀; Congo Belge; Kivu, Mulungu; MRCB, Tervuren.

Figures: Nunberg 1963b: pl. 14, figs. 7–8, Schedl 1962j: 524.

Distribution: Africa (Zaire).

Hosts: *Acridocarpus fraxinifolius*, *Eucalyptus citriodora*.

References: (ds) Mayne & Donis 1962: 319;

Schedl 1962j: 523. (tx) Nunberg 1963b: 32, pl. 14; Schedl 1957d: 104, 1962j: 523–524, 1979c: 98.

forficuloides (Schedl) 1951j: 24 (*Xyleborus*). Lectotype ♀; Madagascar, Tsimbazaza; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 98.

Figures: Schedl 1961e: 150, 1977b: 215.

Distribution: Madagascar.

Hosts: *Chrysophyllum boivianum*, *Coleus* sp., *Ekebergia* sp., *Eleocarpus* sp., *Eugenia* cf. *jambolana*, *Garcinia verrucosa*, *Leptolaene multiflora* var. *cuspidata*, *Mangifera indica*, *Neodypsis baroni*, *Neotina hoursii*, *Senecio erectitoides*, *Weilmannia* sp.

References: (hb) Paulian 1951: 28. (ds) Beaver & Loytyniemi 1985a: 72; Paulian 1951: 28. (tx) Beaver & Loytyniemi 1985a: 72; Schedl 1951j: 24, 1953d: 70, 1961e: 150, 1977b: 213–215, 1979c: 98.

forficuloides dentibaris Schedl 1961e: 150 (*Xyleborus*). Holotype ♀; Madagascar, Montagne d'Ambre; IRSM, Madagascar.

References: (ds) Schedl 1977b: 214. (tx) Schedl 1961e: 150, 1977b: 214–215, 1979c: 98.

forficuloides pinguis Schedl 1961e: 150 (*Xyleborus*). Holotype ♀; Madagascar: Perinet; IRSM, Madagascar.

References: (tx) Schedl 1961e: 150–151, 1977b: 215, 1979c: 98.

forficulus (Eggers) 1922b: 171 (*Xyleborus*). Syn-types ♀; Sudl. Makonde Plateau in Deutsch-Ostafrika; Methner Collection and Eggers Collection USNM, Washington or NHMW, Wien?). Figures: Nunberg 1963b: pl. 15, figs. 3–6.

Distribution: Africa (Angola/ Kenya/ Mozambique/ South Africa/ Tanzania/ Zaire/ Zimbabwe/ Zambia).

Hosts: *Coleus* sp.

References: (hb) Loytyniemi, Beaver, & Loytyniemi 1984. (ds) Browne 1980b: 381; Ferreira 1965: 381; Nunberg 1961a: 330; Schedl 1959p: 20, 1962j: 524, 1965e: 354, 1969d: 4, 1972k: 296. (tx) Eggers 1922b: 171–172, 1930d: 202, 1943c: 66; Nunberg 1963b: 33, pl. 15; Schedl 1952g: 52, 1952j: 4, 1955d: 271, 1955i: 212, 1957d: 84, 104, 1962j: 524.

gracilicornis (Schedl) 1977e: 45 (*Xyleborus*). Holotype ♀; San Francisco Golera, El Salvador; Schedl Collection in NHMW, Wien.

Distribution: North America (El Salvador).

Hosts: *Quercus* sp.

References: (ds) Wood, S. L. 1982b: 844. (tx) Schedl 1977e: 45; Wood, S. L. 1982b: 844.

gracilipennis (Schedl) 1957d: 106 (*Xyleborus*). Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren.

Figures: Nunberg 1963b: pl. 15–16.

Distribution: Africa (Ghana/ Zaire).

Hosts: *Anthonotha macrophylla*, *Clitandra* sp., *Croton haumanianus*, *Dialium corbisieri*,

Macaranga sp., *Microcos pimatifida*, *Musanga cecropioides*, *Peltophorum pterocarpum*, *Staudtia stipitata*, *Trichila* sp.

References: (hb) Schedl 1962j: 494. (ds) Schedl 1962j: 494. (tx) Nunberg 1963b: 34, pl. 15–16; Schedl 1957d: 106, 1962j: 60, 1962k: 1100, 1979c: 107.

gracilis (Eichhoff) 1868c: 145 (*Xyleborus*). Lectotype ♀; Brasilia; USNM, Washington, designated by Anderson & Anderson 1971: 14.

Figures: Pedrosa-Macedo & Schonherr 1985: 30. Distribution: Africa (Azores Islands), Antilles Islands (Guadeloupe), North America (Costa Rica/ Panama/ Florida, Louisiana, North Carolina in USA), South America (Argentina/ Brazil/ Colombia/ Galapagos Islands/ Venezuela).

Hosts: *Cedrela fissilis*, *Marcgravia* sp., *Pinus elliotii*, *Terminalia* sp., *Theobroma cacao*.

Notes: (3) Schedl 1948b: 278 (described male).

References: (hb) Viana 1964: 124. (ds) Blackwelder 1947: 779; Bright 1985c: 173, 1987b; Gemminger & Harold 1872: 2685; Hagedorn 1910d: 105; Kleine 1913b: 161, 1914b: 337; Nunberg 1958a: 481, 1971: 58; Pedrosa-Macedo & Schonherr 1985: 30; Schedl 1966d: 89, 1967d: 3, 1970e: 83, 1971f: 149, 1973d: 158, 1974e: 51, 1976a: 54; Schonherr & Pedrosa-Macedo 1981: 56; Terra 1987: 25; Viana 1964: 124; Weber, B. C. 1982a. (tx) Anderson, W. H. & Anderson 1971: 14; Bright 1985c: 173; Eggers 1941a: 106; Eichhoff 1868c: 145, 1878b: 364–365; Hagedorn 1910a: 154; Hopkins 1915b: 61; Nunberg 1958a: 481; Pedrosa-Macedo & Schonherr 1985: 30; Schedl 1937h: 169, 1948f: 278, 1951h: 285, 1952a: 446, 1979c: 108; Terra 1987: 25; Wood, S. L. 1989: 176, Wylie & Yule 1977.

aspericauda Eggers 1941a: 106 (*Xyleborus*). Holotype ♀; Guadeloupe; Fleutiaux Collection. Synonymy: Bright 1985c: 177.

References: (hb) Beaver 1976a: 23; Wood, S. L. 1982b: 848. (ds) Atkinson & Equihua 1986a: 421; Beaver 1976a: 23; Estrada & Atkinson 1988: 207; Wood, S. L. 1977a: 73, 1982b: 848. (tx) Bright 1985c: 177; Eggers 1941a: 106; Wood, S. L. 1982b: 848.

neogracilis Schedl 1954b: 46 (*Xyleborus*). Lectotype ♀; Brasilien: Parana, Rondon; Schedl Collection in NHMW, Wien. Synonymy: Bright 1985c: 177; Wood 1989: 176.

References: (ds) Schedl 1967d: 3. (tx) Bright 1985c: 177; Schedl 1954b: 46, 1979c: 164; Wood, S. L. 1989: 176.

heveae (Schedl) 1957d: 97 (*Xyleborus*). Holotype ♀; Congo Belge: Kivu, route Tshilinda-Bumyakiri, Yangambi; MRCB, Tervuren.

Figures: Nunberg 1963b: pl. 16, fig. 1. Distribution: Africa (Zaire).

Hosts: *Albizia* sp., *Hevea brasiliensis*.

References: (hb) Schedl 1962j: 495. (ds) Schedl

1962j: 495. (tx) Nunberg 1963b: 35, pl. 16–17; Schedl 1957d: 97, 1962j: 495, 1979c: 116.

interstetosus (Blandford) 1898b: 211 (*Xyleborus*). Holotype ♀; Tamahu, Vera Paz, Guatemala; BMNH, London.

Distribution: Antilles Islands (Guadeloupe), North America (Costa Rica/ Guatemala/ Isla del Coco/ Chiapas, Veracruz in Mexico/ Panama), South America (Brazil/ Colombia/ Suriname/ Venezuela).

Hosts: *Alexa imperatricia*, *Sloanea multiflora*, *Theobroma cacao*, *Vismia guianensis*.

References: (cn) Cleare 1924: 65–68. (hb) Wood, S. L. 1982b: 843. (ds) Atkinson & Equihua 1986a: 421; Bright 1982a: 128; Hagedorn 1910d: 106; Kleine 1913b: 161; Wood, S. L. 1982b: 843. (tx) Blandford 1898b: 211; Eggers 1940a; Hagedorn 1910a: 154; Wood, S. L. 1966b: 31, 1982b: 843.

analogus Schedl 1948f: 277 (*Xyleborus*). Holotype ♀; Mexico; Eggers Collection, in NHMW, Wien. Synonymy: Wood 1966b: 31.

References: (ds) Schedl 1963f: 58, 1973d: 157. (tx) Schedl 1948f: 277, 1979c: 19; Wood, S. L. 1966b: 31.

linearicollis (Schedl) 1937h: 169 (*Xyleborus*). Holotype ♀; Nova-Teutonia, Brasilien; Schedl Collection in NHMW, Wien.

Figures: Pedrosa-Macedo & Schonherr 1985: 32. Distribution: South America (Brazil).

Hosts: *Pinus elliotii*.

References: (hb) Viana 1964: 124. (ds) Blackwelder 1947: 780; Pedrosa-Macedo & Schonherr 1985: 32; Schedl 1966f: 88, 1967d: 3, 1970e: 84, 1976a: 54; Schonherr & Pedrosa-Macedo 1981: 56; Viana 1964: 124. (tx) Pedrosa-Macedo & Schonherr 1985: 32; Schedl 1937h: 169–170, 1939m: 170, 1951h: 285–286, 288; 1954b: 46, 1958f: 35, 1979c: 139.

longulus (Schedl) 1966f: 117 (*Xyleborus*). Holotype ♀; Guadeloupe; Schedl Collection in NHMW, Wien.

Distribution: Antilles Islands (Guadeloupe).

Notes: (1) Bright 1985c: 177 (to *Xyleborinus*).

References: (ds) Bright 1985c: 173, 177. (tx) Bright 1966f: 117, 1985c: 173; Schedl 1979c: 142.

longus (Eggers) 1927b: 403 (*Xyleborus*). Lectotype ♀; Sumatra (Si Rambe); Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 142. Distribution: Indonesia (Java, Sumatra).

Hosts: *Plochodion* sp.

References: (tx) Eggers 1927b: 403; Schedl 1942d: 6, 1957d: 112, 1958b: 103, 1979c: 142.

marcidus (Schedl) 1965c: 72 (*Xyleborus*). Holotype ♂; Madagascar, Montagne d'Ambre; Schedl Collection in NHMW, Wien.

Distribution: Madagascar.

References: (tx) Schedl 1965c: 72, 1977b: 208, 1979c: 148.

- micrographus** (Schedl) 1958b: 103 (*Xyleborus*).
Lectotype ♀; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 153.
Distribution: Asia (Malaya).
Hosts: *Shorea gysbertsiana*.
References: (hb) Browne 1961c: 150. (ds) Browne 1961c: 150, 1983a: 554. (tx) Schedl 1958b: 103, 1960h: 110, 1979c: 153.
- decorus** Schedl 1960h: 110 (*Xyleborus*). Lectotype ♀; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 153, automatic.
Notes: (1) This is an unneeded replacement name for *micrographus*.
References: (tx) Schedl 1960h: 110, 1979c: 153.
- mimosae** (Schedl) 1957d: 109 (*Xyleborus*). Holotype ♀; Congo Belge: Lushadi, cote Ouest Kivu; MRCB, Tervuren.
Figures: Nunberg 1963b: pl. 19, figs. 2–3.
Distribution: Africa (Tanzania/ Zaire).
Hosts: *Acacia podalyriaefolia*.
References: (ds) Schedl 1962j: 495, 1965e: 355, 1967e: 218. (tx) Nunberg 1963b: 39, pl. 19; Schedl 1957d: 109, 1962j: 495, 1979c: 153.
- mitosomiformis** (Schedl) 1953d: 104 (*Xyleborus*). Lectotype ♀; Madagascar, Mt. Tsaratanana, 1500 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 157.
Figures: Schedl 1977b: 198.
Distribution: Madagascar.
References: (tx) Schedl 1953d: 104, 1965c: 73, 1977b: 198, 1979c: 157.
- mitosomipennis** (Schedl) 1953d: 103 (*Xyleborus*). Lectotype ♀; Madagascar, Mt. d'Ambre; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 157.
Figures: Schedl 1977b: 199.
Distribution: Madagascar.
Hosts: *Foetida clusoides*, *Ravensara* sp.
Notes: (3) Schedl 1961e: 155 (named an aberration as var. *laevipennis*, no status).
References: (tx) Schedl 1953d: 103, 1961e: 155, 1977b: 198–199, 1979c: 157.
- namibiae** (Schedl) 1982: 285 (*Xyleborus*). Holotype ♀; Namibia: Klein Spitz-Koppe; TMP, Pretoria.
Figures: Schedl 1977b: 199.
Distribution: Africa (Namibia).
References: (tx) Schedl 1977b: 199, 1982: 285.
- octospinosus** (Eggers) 1920: 44 (*Xyleborus*). Lectotype ♀. *Derema* bei Amami, Ostafrika; Hagedorn Collection, apparently on loan to Eggers when removed by Schedl to NHMW, Wien, designated by Schedl 1979c: 177.
Distribution: Africa (Tanzania).
References: (tx) Eggers 1920: 44; Schedl 1962j: 532, 1979c: 177.
- opimulus** (Schedl) 1976a: 77 (*Xyleborus*). Holotype ♀; Acungui, PR, Brazil; Schedl Collection in NHMW, Wien.
Distribution: South America (Brazil).
Hosts: *Cedrela fissilis*.
References: (ds) Schonherr & Pedrosa-Macedo 1981: 56. (tx) Schedl 1976a: 77.
- percuneolus** (Schedl) 1951i: 85 (*Xyleborus*). Syn-types ♀; Java; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Java).
Notes: (1) Schedl 1979c: 10 (citation of holotype invalid).
References: (tx) Schedl 1951i: 85, 1979c: 188.
- perexiguus** (Schedl) 1971c: 381 (*Xyleborus*). Holotype ♀; Luzon, P.I., Tayabas Prov., Casiguran; Eggers Collection, in NHMW, Wien.
Distribution: Australia, Indonesia (Java), Cook Islands (Rarotonga), Fiji Islands, New Britain Island, New Guinea, Niue Island, Philippine Islands (Luzon), Samoan Islands.
Hosts: *Anacardium occidentale*.
References: (bv) Gray, B. 1974c. (cc) Roberts 1977a: 262. (hb) Beaver 1976b: 540; Gray, B. 1974c; Roberts 1977a: 262. (ds) Beaver 1976b: 540; Beaver & Maddison 1990: 1372–1373; Browne 1974a: 65; Roberts 1977a: 262; Schedl 1972b: 267. (tx) Schedl 1955b: 282, 1958k: 155, 1971c: 381, 1979c: 189.
- perminutissimus** (Schedl) 1934d: 90 (*Xyleborus*). Lectotype ♀; Java, Mt. Gede, 1000 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 190.
Distribution: Asia (Malaya), Indonesia (Java).
Hosts: Rattan, *Canarium litoralis*, *Dipterocarpus kunstleri*, *Hopea* sp., *Shorea sumatrana*.
References: (hb) Browne 1961c: 150; Kalshoven 1959c: 152. (ds) Browne 1961c: 150; Kalshoven 1935a: 14, 1959c: 152; Schedl 1971c: 365. (tx) Schedl 1934d: 90, 1942d: 7, 1979c: 190.
- angustatus** Schedl 1942d: 43 (*Xyleborus*). Lectotype ♀; Java, Mt. Gede, 800 m, Tapos; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 20.
References: (tx) Schedl 1942d: 43, 1979c: 20.
- perpusillus** (Eggers) 1927b: 404 (*Xyleborus*). Holotype ♀; Sumatra; Eggers Collection (not mentioned by Anderson & Anderson 1971 or Schedl 1979c).
Distribution: Indonesia (Sumatra).
References: (tx) Eggers 1927b: 404.
- pilosellus** (Schedl) 1957d: 86 (*Xyleborus*). Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren.
Figures: Nunberg 1963b: pl. 22, figs. 3–4.
Distribution: Africa (Zaire).
Hosts: *Angylocalyx pyraetii*, *Garcinia punctata*.
References: (hb) Schedl 1962j: 168. (ds) Schedl 1962j: 168. (tx) Nunberg 1963b: 45, pl. 22; Schedl 1957d: 85–86, 1962j: 168, 1979c: 194.

polyalthiae (Schedl) 1952i: 19 (*Xyleborus*). Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren. Figures: Nunberg 1963b:pl. 22, figs. 5–6.

Distribution: Africa (Zaire).

Hosts: *Hevea brasiliensis*, *Isolona brucei*, *Polyalthia suaveolens*, *Scorodophloeus zenkeri*.

References: (cc) Schedl 1962j: 496. (hb) Schedl 1962j: 496. (ds) Mayne & Donis 1960: 104, 1962: 322; Schedl 1962j: 496. (tx) Nunberg 1963b: 45, pl. 22; Schedl 1952i: 19, 1962j: 496–497, 1979c: 196.

pometianus (Schedl) 1939e: 354 (*Xyleborus*). Lectotype ♀; Malaya, Selangor: Sungei Boloh For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 197.

Distribution: Asia (Malaya/ Thailand).

Hosts: *Nephelium* sp., *Pometia* sp., *Xerospermum* sp. References: (hb) Browne 1961c: 146. (ds) Browne 1961c: 146, 1984a: 150; Nunberg & Chujo 1961: 358. (tx) Nunberg 1961: 358; Schedl 1939e: 354–355, 1942a: 171, 1979c: 197.

protinus (Wood) 1974a: 42 (*Xyleborus*). Holotype ♀; Finca La Lola, Limon, Costa Rica; Wood Collection.

Distribution: North America (Costa Rica).

Hosts: *Theobroma cacao*.

References: (ds) Wood, S. L. 1982b: 845. (tx) Wood, S. L. 1974a: 43, 1982b: 845.

pseudopityogenes (Eggers) 1943e: 76 (*Xyleborus*). Holotype ♀; Africa: Zambeze (Nova Choupanga pres Chemba); MNHN, Paris.

Distribution: Africa (Mozambique/ Namibia/ South Africa/ Zaire).

References: (ds) Schedl 1962j: 529. (tx) Eggers 1943e: 76; Schedl 1952j: 4, 1953d: 102, 1962j: 529, 1979c: 201.

quadrispinis (Schedl) 1953d: 102 (*Xyleborus*). Lectotype ♀; Madagascar, Mt. Tsaratanana; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 208.

Figures: Schedl 1977b: 209.

Distribution: Madagascar.

Hosts: *Olea ambrensis*, *Pachytrophe dimepate*, *Pittosporum* sp., *Trema orientalis*.

References: (hb) Schedl 1977b: 208. (ds) Hagedorn 1910d: 58; Schedl 1977b: 208. (tx) Hagedorn 1910a: 105; Schedl 1953d: 102, 1961e: 152, 1977b: 208–209, 1979c: 208.

quadrispinosus (Eichhoff) 1878b: 396 (*Xyleborus*). Syntypes ♀; Africa meridionalis; IRSNB, Brussels?

Distribution: Africa (South Africa), Madagascar.

Hosts: *Bridelia tulasneana*, *Canarium* sp., *Cinchona succubra*, *C. ledgeriana*, *Dalbergia pterocarpifolia*, *Eleocarpus* sp., *Macaranga* sp., *Mesogordonia* sp., *Psychotria* sp., *Vernonia* sp.

References: (hb) Schedl 1977b: 209. (ds) Hagedorn 1910d: 110; Kleine 1913b: 128, 162, 1914b: 317; Schedl 1962j: 533, 1970d: 234, 1977b: 209; Thomas, R. T. S. 1960a, 1960b. (tx) Eggers 1920:

125–126; Eichhoff 1878b: 396; Hagedorn 1910a: 156; Schedl 1951j: 24, 1962j: 533, 1970d: 234, 1977b: 209.

reconditus (Schedl) 1963f: 60 (*Xyleborus*). Holotype ♀; Suriname, Tambahredjo; Schedl Collection in NHMW, Wien.

Distribution: North America (Costa Rica/ Panama), South America (Brazil/ Guyana/ Suriname/ Venezuela).

Hosts: *Cratylia floribunda*, *Eugenia jambos*, *Liriosoma singularis*, *Pouteria* sp., *Pseudoolmedia laevigata*, *Qualea ingens*, *Theobroma cacao*.

References: (hb) Browne 1976a: 23; Wood, S. L. 1982b: 846. (ds) Beaver 1976a: 23; Schedl 1973d: 159; Wood, S. L. 1982b: 846. (tx) Schedl 1963f: 60; Wood, S. L. 1967c: 137, 1982b: 846.

saxseni (Ratzeburg) 1837: 167 (*Bostrichus*). Syntypes ♀; Sudlichen Deutschland; not located.

Figures: Bain 1976: 183, Borthwick 1981: 148, Bright 1976d: 132, Grune 1979: 152, Hickin 1963: 269, Hosking 1979c, Joly 1976, Lhoste & Roche 1960, Nobuchi 1966d:pl. 4, 1978a:pl. 4, Pfeffer 1989a:pls. 7–8, Postner 1974: 462, Samuelson 1981: 54, Yin & Huang 1981: 569.

Distribution: Africa (Algeria/ Azores Islands/ Cameroon/ Canary Islands/ Egypt/ Libya/ Madeira Island/ Morocco/ Tunisia/ South Africa), Asia (Bonin Islands/ Xizang [Tibet] in China/ Assam, Bengal, Kashmir, Uttar Pradesh in India/ Iran/ Israel/ Japan/ Korea/ Kuril Islands/ Syria/ Taiwan/ Turkey/ Kamchatka, Sakhalin Island, Siberia in E USSR/ Vietnam), Australia, Europe (Albania/ Austria/ Belgium/ Bulgaria/ Corsica/ Czechoslovakia/ Denmark/ England/ France/ Germany/ Greece/ Hungary/ Italy/ Luxemburg/ Netherlands/ Norway/ Poland/ Portugal/ Romania/ Sardinia/ Spain/ Sweden/ Switzerland/ W USSR/ Yugoslavia), Hawaiian Islands, New Guinea, New Zealand, North America (British Columbia, Ontario in Canada/ Baja California, Hidalgo in Mexico/ Alabama, Arizona, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Mississippi, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, Tennessee, Texas, Utah, Virginia, Washington, West Virginia in USA), Philippine Islands, Samoan Islands, South America (Argentina/ Brazil/ Chile/ Paraguay).

Hosts: Many listed by Schedl 1962j: 507, Yin, Huang, & Li 1984: 158. *Abies koreana*, A. spp., *Acacia koa*, *Acer* spp., *Abies japonica*, *Betula platyphylla japonica*, *Castanea crenata*, *Chamaecyparis obtusa*, *Cornus florida*, *Cryptomeria japonica*, *Eucalyptus* sp., *Fagus grandiflora*, *F. multinervis*, *Knightia excelsa*, *Larix* spp., *Librocedrus decurrens*, *Malilus thunbergii*, *Melastoma* sp., *Metrosideros collina polymorpha*,

Myrica faya, *Myrsine*, *Picea jezoensis*, *P. spp.*, *Pinus rigida*, *P. strobus*, *P. spp.*, *Populus angustifolia*, *P. spp.*, *Prunus armeniaca*, *P. serotina*, *Quercus stenophylla*, *Pseudotsuga menziesii*, *Tsuga spp.*, *Ulmus spp.*

References: (ay) Bamberger 1919: 53; Bugnion 1887b; Escherich 1923b: 488, 629; Feytaud 1950a; Finnegan 1963: 137; Fischer 1954: 137–180; Francke-Grosmann 1956a: 112–118, 1956b, 1956c, 1957, 1958: 141; Hopkins 1894g; Lhoste & Roche 1960; Murayama 1933a: 2; Nosek 1958a: 87; Numberg 1928a: 140; Nusslin 1911a: 4–5, 82; Schneider-Orelli 1913: 27; Uchastnova 1988: 39. (bv) Atkinson, Foltz, & Connor 1988; Chapman 1963: 675; Chararas 1965: 2313; Choo, Woo, & Park 1988; Daterman, Rudinsky, & Nagel 1965; Dixon & Payne 1979b; Grune 1979: 153; Hosking 1973; Kirkendall 1984: 241; Klimetzek et al. 1986: 270; Kovach 1986a; Majernik 1960; Meixner 1937: 1216; Moeck 1971; Roling & Kearby 1975a, 1975b, 1977; Turnbow & Franklin 1980; Welch 1987. (cn) Acatay 1943a: 70; Androic 1966: 46; Anonymous 1940b: 9, 1961j, 1970c: 14, 1980g, 1982i; Barbey 1925: 176; Bargmann 1906: 14; Blackman 1950: 299; Blandford 1892b; Bodenheimer 1930: 234; Bohm 1958; Borthwick 1981: 44; Brandt 1952, 1957; Bremner 1907; Chamberlin 1939: 457–458; Chittenden 1902; Chorbadzhievo 1929; Currie 1905: 71; Davatchi 1958: 77; Doane et al. 1936; Dominik 1959: 1–9; Dugdale 1965b; Ebeling 1950: 666; Eckstein 1926: 572; Egger, A. 1977; Eichhorn & Graf 1974; Escherich 1923b: 488, 629; Essig 1915a: 314, 1926: 521, 1958: 521; Essig & Hoskins 1944: 16; Feytaud 1950a; Fischer 1954: 142; French, J. R. J., Rosel, & Robinson 1977; Gabler 1955; Garcia-Tejero 1955: 235; Georgescu et al. 1957: 357, 405, 417; Goidanich & Goidanich 1934; Grandi 1951; Grecikin 1956: 1480; Groschke 1952b, 1953a: 81–84; Heidenreich 1964: 131; Herfs 1930: 7; Hess & Beck 1914: 292, 1927: 347; Hopkins 1898d: 47, 1904a: 16; Hopping & Jenkins 1933; Hosking 1979a, 1979c; Johnson 1958a: 508, 1958b: 236; Joly 1976; Judeich & Nitsche 1895: 544–545; Kamp 1954: 5; Kershaw 1973; Kholodkovskii 1912: 278, 320; Kleine 1932a: 308; Knight, R. L. & Alston 1974; Konig, E. 1957: 110; Kotte 1941: 64, 1948: 71, 1958: 118; Kovacevic 1951: 69; Kovach 1986a; Kovach & Gorsuch 1985; Kurenzov 1935c: 189, 1951c: 78; Lachance & Pfeiffer 1989; Lamey 1881: 142–143; Leach 1940b: 61; Leiby 1925: 1–62; Luger 1899a: 310; MacNay & Creelman 1958: 27; Majernik 1957: 71, 1959: 198; Marcu 1926c: 65; Menschov & Martins 1974: 6; Milligan 1969a: 1–4, 1969b: 60; Mokrzecki 1931a: 68; Muller 1912: 186; Nash et al. 1951: 46; Nijholt 1978a; Nitto 1953: 302; Nosek 1951: 109, 1958: 87–90; Nusslin 1913: 204; Ormerod 1898: 192; Paillot 1926: 838; Prebble & Graham 1957: 93–96, 110–112; Puecher Passavalli 1931b: 657;

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- arbuti* Hopkins 1915b: 64 (*Xyleborus*). Holotype ♀; Walker, California [USA]; USNM, Washington. Synonymy: Wood 1957c: 403. References: **(cn)** Chamberlin 1924, 1939: 451; Doane et al. 1936; Keen 1938: 147. **(cc)** Chamberlin 1939: 451; Keen 1938: 147. **(hb)** Chamberlin 1939: 451; Doane et al. 1936; Keen 1938: 147. **(ds)** Chamberlin 1939: 451; Keen 1929: 42, 1938: 147; Kleine 1934a: 172; Patterson & Hatch 1945: 154; Schedl 1962j: 498; Swaine 1918a: 127; Wood, S. L. 1957c: 403. **(tx)** Chamberlin 1939: 451; Hopkins 1915b: 64; Keen 1929: 42; Schedl 1962j: 498; Swaine 1918a: 127; Wood, S. L. 1957c: 403.
- subspinosus* Eggers 1930d: 203 (*Xyleborus*). Holotype ♀; India, Assam (Shillong, 6000 feet); FRI, Dehra Dun. Synonymy: Wood 1989: 176. References: **(tx)** Eggers 1930d: 203; Wood, S. L. 1989: 176.
- tsugae* Swaine 1934: 204. Holotype ♀; Oak Ridge, Oregon [USA]; CNCI, Ottawa. Synonymy: Wood 1957c: 403. References: **(bv)** Prebble & Graham 1957: 93. **(cn)** Johnson 1958: 236; McMullen 1956: 34; Prebble 1944: 52; Schuder 1969: 82. **(hb)** Chamberlin 1939: 457; Prebble & Graham 1957: 93. **(ds)** Blackwelder 1939; Chamberlin 1939: 457; Schuder 1969: 82. **(tx)** Bright 1967b: 679; Chamberlin 1939: 457; de Ruette 1970: 114; Schedl 1962j: 499; Swaine 1934: 204–205; Wood, S. L. 1957c: 403. **(ms)** Prebble 1944: 52.
- librocedri* Swaine 1934: 205. Holotype ♀; Oak Ridge, Oregon [USA]; CNCI, Ottawa. Synonymy: Wood 1957c: 403. Notes: (1) A lapsus calami in the original spelling of this name, *libocedri*, was corrected by most authors. References: **(cn)** Chamberlin 1939: 457; Schuder 1969: 75. **(cc)** Chamberlin 1939: 457. **(hb)** Chamberlin 1939: 457. **(ds)** Blackwelder 1939; Chamberlin 1939: 457; Schuder 1969: 75. **(tx)** Bright 1967b: 679; Chamberlin 1939: 457; de Ruette 1970: 114; Schedl 1962j: 502; Swaine 1934: 205–206; Wood, S. L. 1957c: 403.
- pseudogracilis* Schedl 1937h: 169 (*Xyleborus*). Lectotype ♀; Brasilien, Nova Teutonia; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 201. Synonymy: Wood 1989: 176. References: **(ds)** Blackwelder 1947: 780. **(tx)** Schedl 1937h: 169, 1979c: 201; Wood, S. L. 1989: 176.
- retrusus* Schedl 1940c: 208 (*Xyleborus*). Lectotype ♀; Kameroun; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 211. Synonymy: Wood 1989: 176. References: **(tx)** Schedl 1940c: 208, 1957d: 97, 1962j: 497, 1979c: 210; Wood, S. L. 1989: 176.
- peregrinus* Eggers 1944c: 142 (*Xyleborus*). Holotype ♀; Stuttgart, Germany; Eggers Collection, in NHMW, Wien. Synonymy: Schedl 1980d: 122. References: **(ds)** Horion 1951. **(tx)** Eggers 1944c: 142; Schedl 1979c: 189, 1980d: 122.
- pseudoangustatus* Schedl 1948g: 28 (*Xyleborus*). Lectotype ♀; Queensland; Stapleton, Brookfield, Stanthorpe, and New South Wales: W. Pennant Hills; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 200. Synonymy: Schedl 1964m: 313. References: **(cn)** Moore 1959: 188. **(ds)** Moore 1959: 188, 1961: 92; Schedl 1959d: 67; Swezey 1941: 123, 1954: 14. **(tx)** Schedl 1941f: 116, 1942d: 43, 1948g: 28, 1964m: 313, 1979c: 200.
- paraguayensis* Schedl 1948f: 276 (*Xyleborus*). Holotype ♀; Paraguay, Villarrica; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 176.

- References: **(hb)** Viana 1964: 124. **(ds)** Schedl 1966f: 89, 1970e: 84, 1972d: 152, 1973d: 158; Viana 1964: 124. **(tx)** Schedl 1948f: 276, 1951h: 285, 1955e: 256, 1958f: 35, 1972d: 152, 1979c: 184; Wood, S. L. 1989: 176.
- cinctipennis* Schedl 1980b: 186 (*Xyleborus*). Holotype ♀; Queensland, Australia; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 176.
- References: **(tx)** Schedl 1980b: 186; Wood, S. L. 1989: 176.
- schaufussi (Blandford)** 1894d: 117 (*Xyleborus*). Syntypes ♂ ♀; Japan: Lake Junsai, Nikko; BMNH, London.
- Distribution: Asia (Japan/ Taiwan).
- Hosts: *Fagus crenata*.
- References: **(ec)** Inouye et al. 1955: 106. **(hb)** Inouye et al. 1955: 106. **(ds)** Blandford 1894c: 579; Hagedorn 1910d: 110; Kleine 1913b: 162, 1914b: 261, 1934a: 175; Murayama 1953c: 161, 1954b: 182; Nobuchi 1967: 23, 1985c: 27. **(tx)** Blandford 1894d: 117; Hagedorn 1910a: 156; Murayama 1954b: 182; Niisima 1909: 154, 162; Schedl 1934f: 1646, 1972d: 152, 1979c: 184.
- schoenherrii (Schedl)** 1981a: 5 (*Xyleborus*). Holotype ♀; Brasilien, PR [Parana (Telemaco-Borba), Schonherr & Pedrosa-Macedo 1981: 56]; Schedl Collection in NHMW, Wien.
- Distribution: South America (Brazil).
- Hosts: *Pinus elliottii*.
- References: **(ds)** Pedrosa-Macedo & Schonherr 1985: 37; Schonherr & Pedrosa-Macedo 1981: 56. **(tx)** Pedrosa-Macedo & Schonherr 1985: 37; Schedl 1981a: 5.
- sclerocaryae (Schedl)** 1962h: 71 (*Xyleborus*). Holotype ♀; Transvaal, Lothion; NICP, Pretoria.
- Distribution: Africa (South Africa).
- Hosts: *Sclerocarya birrea*, *S. caffra*.
- References: **(cn)** Anonymous 1970c: 14. **(ds)** Anonymous 1970c: 14; Schedl 1962j: 60. **(tx)** Schedl 1962h: 71, 1962k: 1102, 1979c: 222.
- sculptilis (Schedl)** 1964g: 247 (*Xyleborus*). Holotype ♀; Sarawak, Kuching; BMNH, London.
- Distribution: Indonesia (Sarawak in Borneo).
- Hosts: *Artocarpus heterophyllus*.
- References: **(tx)** Schedl 1964g: 247, 1979c: 223.
- setosus (Eichhoff)** 1868c: 146 (*Xyleborus*). Holotype ♀; Brasilia; Schedl Collection in NHMW, Wien.
- Figures: Pedrosa-Macedo & Schonherr 1985: 38.
- Distribution: South America (Brazil/ Paraguay/ Peru).
- Hosts: *Arancaria angustifolia*, *Cedrela fissilis*.
- Notes: (1) The original spelling on page 146 with the description was *setosus*, but it was corrected by Eichhoff 1878b: 64, 395; the original spelling (Eichhoff 1868c: 146) is treated as a lapsus calami.
- References: **(cn)** Santoro 1966a. **(ds)** Ferrer 1942; Hagedorn 1910d: 110; Kleine 1913b: 162, 1914b: 337; Pedrosa-Macedo & Schonherr 1985: 38; Santoro 1957b: 26; Schedl 1960a: 77, 1966f: 90, 1967d: 3, 1971f: 149, 1972g: 45, 1973d: 162, 1976a: 551; Schonherr & Pedrosa-Macedo 1981: 57. **(tx)** Eggers 1920: 125–126; Eichhoff 1868c: 146; Iglesias 1914b: 130; Hagedorn 1910a: 156; Numberg 1956a: 145; Pedrosa-Macedo & Schonherr 1985: 38; Schaufuss 1891: 28; Schedl 1931c: 342–343, 1940a: 368, 1951h: 285, 1952a: 446, 1966e: 43, 1979c: 225.
- sharpae (Hopkins)** 1915b: 63 (*Xyleborus*). Holotype ♀; Mt. Coffee, Liberia; USNM, Washington. Figures: Nobuchi 1978a: pl. 4.
- Distribution: Africa (Angola/ Cameroon/ Congo/ Equatorial Guinea/ Ghana/ Guinea/ Ivory Coast/ Liberia/ Tanzania/ Zaire).
- Hosts: Many listed by Schedl 1962j: 509–513. *Albizzia ferruginea*, *A. zygia*, *Bosqueia angolensis*, *Bussea occidentalis*, *Celtis zenkeri*, *Entandrophragma utile*, *Khaya ivorensis*, *Macrolobium* sp., *Pinus caribaea*, *Piptadeniastrum africanum*, *Terminalia ivorensis*, *T. superba*, *Trichilia heudelotii*.
- References: **(cn)** Anonymous 1953j: 25. **(ec)** Anonymous 1953j: 25; Banerjee 1983. **(hb)** Jones 1959: 6; Jones, Roberts, & Baker 1959: 13–37; Schedl 1962j: 512; Thompson, G. H. 1963: 72; Webb & Jones 1957: 25–36. **(ds)** Browne 1970: 542; Nobuchi 1978a: 43; Schedl 1962b: 61, 1962j: 512, 1964e: 69, 1969a: 203, 1971e: 2, 1971f: 149, 1971g: 194; Thompson, G. H. 1963: 72. **(tx)** Eggers 1940c: 237; Hopkins 1915b: 63–64; Nobuchi 1978a: pl. 4; Schedl 1951e: 39, 1954e: 54, 1955d: 269, 1962h: 61, 1962j: 512; Wood, S. L. 1962: 79.
- schreineri** Eggers 1920: 115 (*Xyleborus*). Lectotype ♀; Amami (D.O. Afrika); Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 222. Synonymy: Wood 1962: 79.
- References: **(hb)** Cachan 1957: 15; Schedl 1962j: 508. **(ds)** Ferreira 1965: 1125; Mayne & Donis 1962: 322; Schedl 1959p: 21, 1962j: 508, 1967c: 218. **(tx)** Eggers 1920: 115; Numberg 1963b: 51, pl. 26; Schedl 1951e: 39; 1954d: 572, 1962j: 508, 1979c: 222; Wood, S. L. 1962: 79.
- signatipennis (Schedl)** 1961e: 152 (*Xyleborus*). Holotype ♀; Madagascar, Perinet et Antaniditra, pres Perinet; IRSM, Madagascar.
- Distribution: Madagascar.
- Hosts: *Alchornea coriacea*, *Cassipourea* sp., *Dalbergia pterocarpifolia*, *Ekebergia* sp., *Eleocarpus* sp., *Oncostemon* sp., *Peptadenia perivillei*.
- References: **(hb)** Schedl 1977b: 211. **(ds)** Schedl 1977b: 211. **(tx)** Schedl 1961e: 152, 1977b: 211, 1979c: 228.
- similans (Eggers)** 1940c: 237 (*Xyleborus*). Holotype ♀; Congostaat: Kasamvu; Eggers Collection, in NHMW, Wien.
- Figures: Numberg 1963b: pl. 27, figs. 3–5.

Distribution: Africa (Congo/ Ghana/ Ivory Coast/ Somalia/ Zaire).

Hosts: *Acacia dudgeoni*, *Albizia adianthifolia*, *A. gummiifera*, *Alchornea hirtella*, *Blighia sapida*, *Cola chlamydantha*, *Funtumia elastica*, *Guarua laurentii*, *Hevea brasiliensis*, *Macaranga* sp., *Macrolobium heudelotianum*, *Pentadesma lebrunii*, *Scorodophloeus zenkeri*, *Sterculia rhinopetala*, *Terminalia superba*, *Triplochiton scleroxylon*, *Turraecanthus africana*.

References: (ce) Schedl 1962j: 514. (hb) Browne 1963: 244; Cachan 1957: 15; Schedl 1962j: 514. (ds) Browne 1963a: 244; Mayne & Donis 1962: 322; Schedl 1962h: 61, 1962j: 514, 1966c: 228, 1967a: 219; Thompson, G. H. 1963: 72. (tx) Eggers 1940c: 237; Nunberg 1963b: 54, pl. 27; Schedl 1951f: 40, 1954d: 872–873, 1954e: 54, 1955c: 31, 1962h: 61, 1962j: 514, 1979c: 229.

speciosus (Schedl) 1975e: 457 (*Xyleborus*). Holotype ♀; Bengal, Darjeeling; Schedl Collection in NHMW, Wien.

Distribution: Asia (Bengal in India).

References: (tx) Schedl 1975e: 457.

spiculatus (Schedl) 1965c: 70 (*Xyleborus*). Holotype ♀; G. Comoren [apparently Grande Comoro Island in Indian Ocean off Mozambique]; Schedl Collection in NHMW, Wien.

Distribution: Africa (Grande Comoro Island), Madagascar.

References: (ds) Schedl 1969d: 10. (tx) Schedl 1965c: 70, 1977b: 200, 1979c: 234.

spiculatus (Schaufuss) 1891: 28 (*Xyleborus*). Holotype ♀; Madagascar; Hamburg Museum, lost.

Distribution: Madagascar.

Hosts: *Allophylus macrocarpus*, *Chrysophyllum boivinianum*, *Dombeya* sp., *Ficus sorocoides*, *Gouania glandulosa*, *Macphersonia* cf. *madagascariensis*, *Olea ambrensis*, *Panax* sp., *Pittosporum* sp., *Trema orientalis*, *Tricodendron acuminatum*. References: (hb) Schedl 1977b: 200. (ds) Alluaud 1900: 441; Fairmaire 1892b; Frappa 1933: 179; Hagedorn 1907a: 261, 1907b: 111, 1910d: 111; Kleine 1913b, 1914b: 326; Schedl 1977b: 200; Spahr 1981. (tx) Eggers 1920: 125–126; Fairmaire 1892b; Hagedorn 1910a: 156, 1913b: 257; Keler 1928: 29; Schaufuss 1891: 28; Schedl 1953d: 71, 1965c: 70, 1969d: 10, 1977b: 200.

spinifer (Eggers) 1920: 116 (*Xyleborus*). Holotype ♀; Sogosse (British Bechuanaland), Sudafrika; MNB, Berlin.

Distribution: Africa (Angola/ Botswana/ Namibia/ South Africa), Madagascar.

Hosts: *Acacia* sp., *Pinus khasia*.

References: (cn) Anonymous 1970c: 14. (ds) Anonymous 1970c: 14; Ferreira 1965: 112; Schedl 1959p: 21, 1962j: 530, 1977b: 216. (tx) Eggers 1920: 116, 1922b: 171; Schedl 1957c: 325, 1957d: 85, 1962j: 530, 1977b: 216.

spiniger (Schedl) 1954b: 45 (*Xyleborus*). Lectotype ♀; Brasilien: Matto Grosso, Rio Caraguata; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 235.

Distribution: South America (Brazil).

References: (tx) Schedl 1954b: 45, 1979c: 235.

spinipennis (Eggers) 1930d: 202 (*Xyleborus*). Holotype ♀; Assam (Haflong, Cachar); FRI, Dehra Dun, lost.

Distribution: Asia (Assam in India).

Notes: (1) A Beeson note in his collection states that the holotype was lost before 1941.

References: (tx) Eggers 1930d: 202.

spinipes (Schedl) 1957d: 103 (*Xyleborus*). Holotype ♀; Congo Belge: Yangambi; MRCB, Tervuren.

Figures: Nunberg 1963b: pl. 28, figs. 4–5.

Distribution: Africa (Zaire).

Hosts: *Celtis brieui*, *Scorodophloeus zenkeri*.

References: (ds) Schedl 1962j: 530, 1967e: 219.

(tx) Nunberg 1963b: 57, pl. 28; Schedl 1957d: 103, 1962j: 530, 1979c: 235.

spiniposticus Wood 1992b: 80. Holotype, sex?; Fiji; Schedl Collection in NHMW, Wien, automatic.

Distribution: Fiji Islands.

References: (tx) Wood, S. L. 1992b: 80.

spinipennis Schedl 1979f: 106 (*Eidophelus*).

Holotype, sex?; Fiji; Schedl Collection in NHMW, Wien, preoccupied by Eggers 1930.

References: (tx) Beaver 1991: 94; Schedl 1979f: 106; Wood, S. L. 1992b: 80.

spinosus (Schaufuss) 1891: 27 (*Xyleborus*). Syn-types ♀; Madagascar; Hamburg Museum, lost.

Distribution: Madagascar.

Hosts: *Allophylus macrocarpus*, *Chrysophyllum boivinianum*, *Dombeya* sp., *Ficus sorocoides* var. *macrophlebia*, *Gouania glandulosa*, *Pittosporum* sp. References: (ce) Schedl 1977a: 201, 1977b: 201.

(hb) Fairmaire 1892b; Schedl 1977a: 201, 1977b: 201. (ds) Alluaud 1900: 438–442; Fairmaire 1892b; Frappa 1933: 179; Hagedorn 1910d: 111; Kleine 1913b, 1914b: 326; Schedl 1977a: 201, 1977b: 201. (tx) Eggers 1920: 44, 125–126; Hagedorn 1910a: 156, 1913b: 256; Schaufuss 1891: 27; Schedl 1953d: 71, 1977b: 201.

mitosomus Schedl 1965c: 73 (*Xyleborus*). Holotype ♀; Madagascar, Ankaratra; Schedl Collection in NHMW, Wien. Synonymy: Schedl 1977b: 201.

References: (tx) Schedl 1965c: 73, 1977b: 201, 1979c: 157.

subgranulatus (Eggers) 1930d: 202 (*Xyleborus*). Holotype ♀; Assam (Central Range, Sibsagar Div.); FRI, Dehra Dun.

Distribution: Asia (Burma/ Assam, Bengal, Karnataka in India).

Hosts: *Amoora walichii*, *Cinnamomum zeylanicum*, *Juglans regia*, *Sapium eugeniaefolium*, *Terminalia myriocarpa*, *Vatica lanceaefolia*.

References: (cn) Mathur & Singh 1961b: 71. (ds)

Beeson 1930: 260; Kleine 1934a: 175; Mathur & Singh 1961b: 71. (tx) Beeson 1930: 260; Eggers 1930d: 84, 202; Schedl 1979c: 242.

subsulcatus (Eggers) 1927a: 190 (*Xyleborus*). Holotype ♀; Belge Congo (Barumbu); MRCB, Tervuren.

Figures: Nunberg 1963b:pl. 29, figs. 3–4.

Distribution: Africa (Zaire/Zambia).

Hosts: *Theobroma cacao*.

References: (hb) Ghesquiere 1933a: 31, 36, 1933b: 781–786; Loyttyniemi, Beaver, & Loyttyniemi 1984. (ds) Beaver & Loyttyniemi 1985a: 76; Kleine 1934a: 175; Schedl 1962j: 522; Wichmann 1954: 521. (tx) Eggers 1927a: 190–191; Nunberg 1963b: 58, pl. 29; Schedl 1962j: 522.

syzygii (Schedl) 1959q: 709 (*Xyleborus*). Holotype ♀; Tanganyika, N. Prov.; BMNH, London.

Distribution: Africa (Tanzania).

Hosts: *Syzygium* sp.

References: (ds) Schedl 1962j: 532. (tx) Schedl 1959q: 709, 1960h: 106, 1962j: 532, 1979c: 248.

tribuloides Wood 1977b: 218. Holotype ♀; 24 km S Valle Nacional, Oaxaca, Mexico; CNCI, Ottawa. Distribution: North America (Oaxaca in Mexico).

Hosts: *Cecropia* sp.

References: (ds) Atkinson & Equihua 1986a: 421; Wood, S. L. 1982b: 844. (tx) Wood, S. L. 1977b: 218, 1982b: 844.

tribulosus Wood 1974a: 42. Holotype ♀; Madden Forest, Canal Zone, Panama; Wood Collection.

Distribution: North America (Panama).

References: (hb) Wood, S. L. 1982b: 844. (ds) Wood, S. L. 1982b: 844. (tx) Wood, S. L. 1974a: 42, 1982b: 844.

truncatipennis (Schedl) 1961f: 92 (*Xyleborus*). Holotype ♀; Balaban, Philippines; Schedl Collection in NHMW, Wien.

Distribution: Philippine Islands.

References: (ds) Schedl 1966b: 75. (tx) Nobuchi 1983: 304; Schedl 1961f: 92, 1979c: 256.

undatus (Schedl) 1974c: 264 (*Xyleborus*). Holotype ♀; Nord-Vietnam, L. Thsi Nguyen; MHNb, Bucharest.

Distribution: Asia (Vietnam).

References: (ds) Schedl 1974c: 262. (tx) Schedl 1974c: 264, 1979c: 260.

Genus *Mesoscolytus* Broun

MESOSCOLYTUS BROUN 1904: 125. Type-species: *Mesoscolytus inurbanus* Broun, monobasic.

References: (hb) Wood, S. L. 1986a: 84. (ds) Hagedorn 1910d: 75; Hutton 1904: 219; Wood, S. L. 1986a: 84. (tx) Broun 1904: 125, 1909: 125; Hagedorn 1910a: 92; Wood, S. L. 1986a: 84.

inurbanus (Broun) 1904: 126 (*Apate*). Holotype ♀; Tairua, New Zealand; not located.

Figures: Baine 1976: 183 (adult).

Distribution: New Zealand.

Notes: (1) The description cited here may be a redescription; Broun states that the type was found about 30 years prior to 1904 and was referred to *Apate*. (3) It is apparent that the species we cite as *inurbanus* is not congeneric with the one identified by Schedl; confirmation is needed.

References: (ds) Broun 1904: 126; Hagedorn 1910d: 75; Hutton 1904: 219; Kleine 1913b: 142, 1914b: 304. (tx) Bain 1976: 183; Broun 1904: 126; Hagedorn 1910a: 92; Hopkins 1914: 124; Lucas 1920: 406. (ms) Lucas 1920: 406.

Genus *Hadrodemius* Wood

HADRODEMIUS WOOD 1980c: 94. Type-species: *Xyleborus globus* Blandford, original designation.

Keys: Eggers 1939b: 11.

References: (hb) Wood, S. L. 1986a: 84. (ds) Wood, S. L. 1986a: 84. (tx) Wood, S. L. 1980c: 94, 1986a: 84.

amorphus (Eggers) 1926b: 147 (*Xyleborus*). Syn-types 1 ♀, 1 ♂; Formosa; Eggers Collection, in NHMW, Wien.

Figures: Nobuchi 1967:pl. 1, Yin & Huang 1981: 568.

Distribution: Asia (Fujian, Sichuan, Xizang [Tibet] in China/ Taiwan).

Hosts: *Acacia* sp., *Ficus carica*, *Machilus* sp., *Quercus* sp.

Notes: (1) Schedl 1979c: 18 (citation of holotype invalid).

References: (ds) Miwa 1931: 269; Murayama 1934d: 505–512; Nobuchi 1967: 21; Yin & Huang 1981: 567; Yin, Huang, & Li 1984: 177. (tx) Eggers 1926b: 147–148, 1939b: 11; Nobuchi 1967:pl. 1; Schedl 1934f: 1645, 1960i: 109, 1979c: 18; Yin & Huang 1981: 567–568, Yin, Huang, & Li 1984: 177.

melli Schedl 1938h: 463 (*Xyleborus*). Lectotype ♀; China, Tsha-jiu-san; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 151. Synonymy: Schedl 1960i: 109.

References: (ds) Schedl 1960e: 172. (tx) Schedl 1938h: 463–464, 1960e: 172, 1960i: 109, 1979c: 151.

artecomans (Schedl) 1953c: 24 (*Xyleborus*). Lectotype ♀; Frikien, Kautun, China (2300 m), M. Br. 117.40 degrees, 21.5 L; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 26.

Figures: Nunberg 1959a:pl. 18, figs. 7–8, Yin, Huang, & Li 1984: 176 (male).

Distribution: Asia (Fujian, Hainan Island, Xizang [Tibet] in China).

Hosts: *Ficus chorocarpa*, *Machilus* sp.

References: (ds) Schedl 1960e: 172; Yin & Huang 1981: 566. (tx) McNamara 1984: 759; Nunberg 1959a: 415–416; Schedl 1953c: 24, 1979c: 26; Yin & Huang 1981: 566, 567, Yin, Huang, & Li 1984: 176.

comans (Sampson) 1919: 109 (*Xyleborus*). Syntypes ♀; Borneo, Sarawak (Mt. Merinjak and Quop); BMNH, London.

Distribution: Asia (Malaya), Indonesia (Borneo, Java, Sumatra).

Hosts: *Aphanamix rohituka*, *Fordia* sp., *Hopea ferrea*, *H. odorata*, *Melanorrhoea* sp., *Rhodamnia trinervia*, *Saurauia pentapetala*, *Shorea bracteolata*, *S. leprosula*, *S. maxwelliana*, *Streblus elongatus*, *Swietenia macrophylla*.

References: (hb) Beaver & Browne 1978: 606; Browne 1961c: 111. (ds) Beaver & Browne 1978: 606; Browne 1961c: 111; Sampson 1919: 109; Schedl 1965g: 22. (tx) Eggers 1926b: 147, 1927b: 406, 1930d: 187–188; Sampson 1919: 109–110; Schedl 1953c: 290, 1964d: 212, 1965g: 22, 1979c: 60.

globus (Blandford) 1896b: 208 (*Xyleborus*). Holotype ♀; New Guinea, Dorey; BMNH, London.

Figures: Numberg 1959a: pl. 30, figs. 5–6.

Distribution: Asia (India/ Malaya/ Taiwan/ Thailand), Indonesia (Borneo, Java, Sumatra), New Guinea, Philippine Islands, Solomon Islands.

Hosts: *Artocarpus* sp., *Canarium littorale*, *Castanea argenea*, *Cinnamomum* sp., *Dryobalanops longifolia*, *Dysoxylum* sp., *Eupatorium pallescens*, *Intsia palembanica*, *Kleinhovia hospita*, *Litsa megacarpa*, *Piper* sp., *Swietenia macrophylla*, *Turpinia pomifera*.

Notes: (3) The record from "India" probably refers to the Malayan collections (SIW).

References: (ay) Browne 1961d: 49. (cn) Kleine 1932a: 307. (hb) Beaver & Browne 1975: 298; Browne 1961c: 111–112; Kalshoven 1924; 1959c: 163; Kleine 1932a: 307. (ds) Beaver & Browne 1975: 298; Browne 1981a: 125; Hagedorn 1910d: 105; Kalshoven 1924b: 358, 1959c: 163; Kleine 1913b: 161, 1914b: 296, 1932a: 307; Nobuchi 1967: 22; Schedl 1971f: 149, 1975e: 451. (tx) Blandford 1896b: 208; Hagedorn 1910a: 154.

ursus Eggers 1923a: 173 (*Xyleborus*). Holotype ♀; Malinao Tayabas (Luzon); SMTD, Dresden. Synonymy: Browne 1961c: 111.

References: (cn) Mathur & Singh 1961a: 79. (ds) Mathur & Singh 1961a: 79; Schedl 1936g: 528, 1964d, 1966b: 76. (tx) Browne 1961c: 111; Eggers 1923a: 172–174, 1926b: 147, 1927b: 406, 1939b: 11; Nobuchi 1983: 304; Numberg 1959a: 442; Schedl 1939e: 329.

ursus fuscus Eggers 1923a: 174 (*Xyleborus*). Holotype ♀; Si-Rambe auf Sumatra; MCG, Genova. Synonymy: Browne 1961c: 111.

References: (tx) Browne 1961c: 111; Eggers 1923a: 173–174, 1939b: 10–11; Kalshoven 1959: 163; Schedl 1937e: 544, 1939e: 329, 1942d: 5, 1951i: 42, 90, 1954a: 141, 1961c: 71, 1979c: 102.

metacomans (Eggers) 1930d: 188 (*Xyleborus*).

Holotype ♀; Assam (Haflong, Cachar); FRI, Dehra Dun.

Figures: Kumar & Chandra 1977: 45 (male).

Distribution: Asia (Burma/ Assam, Bengal in India).

Hosts: *Clerodendron infortunatum*, *Mesua ferrea*, *Terminalia myriocarpa*.

Notes: (3) Kumar & Chandra 1977: 35 (described male).

References: (ay) Gardner 1934b: 1–17. (cn) Mathur & Singh 1960a: 6, 1961b: 34. (ds) Mathur & Singh 1960a: 6, 1961b: 34. (tx) Eggers 1930d: 187–188, 1939d; Gardner 1934b: 1–17; Kumar & Chandra 1977: 35, 45.

pseudocomans (Eggers) 1930d: 187 (*Xyleborus*).

Holotype ♀; Assam: Upper Dihing Reserve, Lakhimpur; FRI, Dehra Dun.

Distribution: Asia (Burma/ Xizang [Tibet] in China/ Assam, Bengal in India).

Hosts: *Cinnamomum cecicodaphne*, *Mallotus alba*, *Myristica longifolia*, *Terminalia myriocarpa*.

References: (cn) Mathur & Singh 1961b: 345. (ds) Beeson 1930; Kleine 1934a: 175; Mathur & Singh 1961b: 345; Schedl 1969c: 54. (tx) Beeson 1930: 252; Eggers 1930d: 187; Schedl 1953c: 24, 1979c: 201.

pubifer (Schedl) 1972m: 200 (*Xyleborus*). Holotype ♀; Brit. N. Borneo; BMNH, London.

Distribution: Indonesia (Sarawak in Borneo).

References: Schedl 1972m: 200.

tomentosus (Eggers) 1939b: 10 (*Xyleborus*). Holotype ♀; Nordostbirma (Kambaiti, 7000 Fuss); NHR, Stockholm.

Distribution: Asia (Burma).

References: (tx) Eggers 1939b: 10.

Genus *Eccoptopterus* Motschulsky

ECCOPTOPTERUS MOTSCHULSKY 1863: 515. Type-species: *Eccoptopterus sexspinosus* Motschulsky = *Scolytus spinosus* Olivier, monobasic.

Platydictylus Eichhoff 1886: 25. Type-species: *Platydictylus gracilipes* Eichhoff, monobasic, preoccupied by Goldfuss 1820.

References: (tx) Blandford 1893a: 162, 1893d: 442; Eichhoff 1886: 25; Hagedorn 1909a: 733; Schedl 1962j: 90.

Eurydictylus Hagedorn 1909a: 733. Type-species: *Platydictylus gracilipes* Eichhoff, automatic. Synonymy: Hagedorn 1910d: 110.

References: (tx) Hagedorn 1909a: 733, 1910d: 110, 1912b: 35; Schedl 1962j: 90.

References: (ay) Francke-Grosinam 1958: 139–144; Nobuchi 1969a: 64. (hb) Browne 1958b: 164–182; Wood, S. L. 1986a: 84. (ds) Brimblecombe 1953: 18; Hagedorn 1910d: 97–98; Schedl 1962j: 90, 1966b: 79, 1977b: 223; Wood, S. L. 1986a: 84. (tx) Blandford 1898b: 194; Browne 1955: 351, 1961c: 174–178, 1962g: 76; Eggers 1923a: 193; Eichhoff 1876a: 379; Hagedorn 1910a: 150, 1912b: 35; Hopkins 1914: 121, 135, 1915b: 10, 1915c: 176, 226; Motschulsky 1963: 515; Samp-

- son 1911: 382, 1919: 112; Schedl 1936j: 26, 1939j: 570, 1957d: 83–84, 1959a: 512, 1962j: 90, 1977b: 223; Strohmeyer 1911: 25; Wood, S. L. 1986a: 84.
- drescheri** Eggers 1940d: 154. Holotype ♀; Java (Batoerraden, G. Skunet); F.C. Drescher Collection. Distribution: Indonesia (Java). References: (tx) Eggers 1940d: 154; Schedl 1979c: 84.
- eccoptopterus** (Schedl) 1951k: 154 (*Xyleborus*). Lectotype ♀; Tutuila, Fagatogo, 2100 ft., Upolu, Afiamali, 2200 ft.; Schedl Collection, designated by Schedl 1979c: 86. Distribution: Samoan Islands. References: (tx) Beaver 1976b: 544; Schedl 1951k: 138, 153–154, 1979c: 86.
- gracilipes** (Eichhoff) 1886: 25 (*Platydictylus*). Holotype ♀; Moluccas; Hamburg Museum, lost. Distribution: Asia (Malaya), Indonesia (Batu Island, Borneo, Java, Moluccas, Sumatra), New Guinea, Philippine Islands, Samoan Islands. Hosts: *Artocarpus elastica*, *Shorea leprosula*. References: (cc) Browne 1958b. (hb) Browne 1958b, 1961c: 174; Kalshoven 1959a: 226, 1959c: 166. (ds) Browne 1961c: 174, 1980d: 491; Hagedorn 1910d: 105; Kalshoven 1959c: 166; Kleine 1913b: 168; Sampson 1919: 112; Schedl 1966b: 80. (tx) Eggers 1923a: 192–193, 1927b: 407, 1927c: 102; Eichhoff 1886: 25; Hagedorn 1910a: 154; Hopkins 1914: 122, 127; Kalshoven 1959a: 226; Nobuchi 1983: 304; Sampson 1919: 112; Schedl 1940b: 442, 1951i: 44, 1954a: 144.
- collaris** Eggers 1923a: 194 (*Xyleborus*). Lectotype ♀; Batoe Inseln (Tamah Masa); USNM, Washington, designated by Anderson & Anderson 1971: 9. Synonymy: Wood 1989: 172. References: (hb) Kalshoven 1959c: 166. (ds) Kalshoven 1959c: 166; Schedl 1961c: 70, 1965g: 24, 1966b: 80. (tx) Anderson, W. H. & Anderson 1971: 9; Eggers 1923a: 194; Nobuchi 1983: 304; Schedl 1939c: 332, 1940b: 435, 442, 1965g: 24; Wood, S. L. 1989: 172.
- limbus** Sampson 1911: 381. Holotype ♂; Perak; BMNH, London. Distribution: Asia (Malaya), Indonesia (Borneo, Java, Sumatra, Sunda Islands). Hosts: *Adenanthera pavonina*, *Aphanamixia rohituka*, *Arthrophylllum diversifolium*, *Castanopsis sumatrana*, *Dipterocarpus baudii*, *Eucalyptus deglupta*, *Grewia* sp., *Heritiera javanica*, *Hopea odorata*, *Koompassia excelsa*, *Rhodamnia trinervia*, *Shorea leprosula*, *Swietenia macrophylla*, *Swintonia specifera*. References: (cn) Browne 1949c. (cc) Browne 1958b. (hb) Beaver & Browne 1978: 587; Browne 1935a, 1941, 1958b, 1961c: 177; Kalshoven 1959c: 167. (ds) Beaver & Browne 1978: 587; Browne 1935a, 1961c: 177–178, 1984b: 286, 1984c: 448; Kalshoven 1959c: 167. (tx) Browne 1955: 351; Eggers 1923a: 193, 1927b: 407; Sampson 1911: 381–383; Schedl 1954a: 144.
- squamulosus duplicatus** Eggers 1923a: 193 (*Xyleborus*). Lectotype ♀; Perak; USNM, Washington, designated by Anderson & Anderson 1971: 12. Synonymy: Wood 1989: 172. Notes: (3) Eggers 1923a: 193 (named var. *auratus*). References: (tx) Anderson, W. H. & Anderson 1971: 12; Eggers 1923a: 193; Schedl 1954a: 144, 1979c: 236; Wood, S. L. 1989: 172.
- multispinosus** (Hagedorn) 1908: 377 (*Platydictylus*). Syntypes ♀; Sumatra und Kamerun; MNB, Berlin? Distribution: Indonesia (Sumatra). Notes: (1) Originally named as a subspecies of *sexspinosus*. References: (hb) Hagedorn 1913a: 47–48. (ds) Kleine 1914b: 268, 312; Sampson 1914: 389. (tx) Eggers 1920: 125–126; Hagedorn 1908; Sampson 1911: 382, 1914: 389; Schedl 1962j: 92; Strohmeyer 1911: 25.
- sexspinosus pluridentatus** Schedl 1942d: 49. Lectotype ♀; Sumatra; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 227. Synonymy: Kalshoven 1959b: 96. References: (cn) Yunus & Hua 1980: 231. (ds) Browne 1949b; Yunus & Hua 1980: 231. (tx) Browne 1949b; Kalshoven 1959b: 96–97; Schedl 1942a: 171, 1942d: 49, 1979c: 227.
- sagittarius** Schedl 1939f: 41. Lectotype ♀; Luzon Rizal, Mt. Irid; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 218. Distribution: Asia (Malaya), Indonesia (Borneo, Sumatra), Philippine Islands. Hosts: *Gmelina arborea*, *Shorea* sp., *Swietenia macrophylla*. References: (hb) Browne 1961c: 176; Kalshoven 1959c: 167. (ds) Browne 1961a: 307, 1961c: 176–177; Kalshoven 1959c: 167; Nobuchi 1979a: 407; Schedl 1966b: 80. (tx) Nobuchi 1983: 304; Schedl 1939f: 41, 1979c: 218.
- spinosus** (Olivier) 1795: 9 (*Scolytus*). Holotype ♀; Java; MNHN, Paris. Figures: Nobuchi 1978a: pl. 1, Numberg 1959a: pl. 28, figs. 6–8, Schedl 1962j: 91, 1977b: 223. Distribution: Africa (Angola/ Batchian Island/ Cameroon/ Canary Islands/ Congo/ Dama Island/ Equatorial Guinea/ Fernando Poo Island/ Ghana/ Guinea/ Ivory Coast/ Kenya/ Mauritania/ Nigeria/ Seychelles Islands/ South Africa/ Tanzania/ Uganda/ Zaïre/ Zambia), Asia (Burma/ Andaman Islands, Assam, Maharashtra, Tamil Nadu in India/ Japan/ Malaya/ Sri Lanka/ Taiwan/ Thailand/ Vietnam), Australia (Queensland), Indonesia (Borneo, Celebes, Java, Sumatra), Madagascar, New Guinea, Philippine Islands, Reunion Island, Tonga. Hosts: *Albizia lebbek*, *Anacardium occidentale*, *Artocarpus nobilis*, *Bassia latifolia*, *Bridellia retusa*, *Canarium euphyllum*, *Dipterocarpus*

turbinatus, *Gluta travanicorica*, *Mangifera indica*, *Shorea robusta*, *Swietenia macrophylla*, *Tectona grandis*, *Terminalia belerica*.

References: **(ay)** Butovitsch 1929: 7; Francke-Grosmann 1963: 422. **(bv)** Gray, B. 1974c. **(cn)** Anonymous 1970c: 13; Beaver 1988a: 63; Cachan 1957: 15; Cotes 1891: 61, 1893: 155; Miller 1932: 19. **(hb)** Beaver 1988a: 63; Beaver & Browne 1975: 289, 1978: 587; Beaver & Loytyniemi 1985a: 70; Browne 1961c: 175–176; Chobant 1897: 262; Gray, B. 1974c; Loytyniemi, Beaver, & Loytyniemi 1984; Roberts 1969: 125; Schedl 1962j: 91, 1977b: 224; Zimmermann 1908: 716–724. **(ds)** Alluand 1900: 441; Anonymous 1970c: 13; Beaver 1988a: 63; Beaver & Browne 1975: 289, 1978: 587; Beaver & Loytyniemi 1985a: 70; Browne 1963: 246–247, 1966: 257, 1970: 541, 1980d: 491, 1985b: 290; Ferreira 1965: 1119; Nobuchi 1979a: 407; Ohno, Yoneyama, & Nakazawa 1987a: 89; Ohno, Yoshioka, et al. 1988a: 95, 1989: 64; Schedl 1962j: 91, 1964d, 1965g: 21, 1966b: 80, 1966g: 33, 1968c: 263, 1969d: 7, 1969e: 156, 1970h: 180, 1971a: 279, 1971g: 190, 1974c: 262, 1975a: 454, 1975e: 452, 1975i: 347, 1975k: 278, 1977b: 224. **(tx)** Beaver 1987b: 87; Blandford 1863a: 162, 1893b: 63–65, 1894b: 261, 1895a: 322, 1896c: 64–65, 1898a: 425, 1898b: 201; Butovitsch 1929: 7; Eggers 1927c: 102; Hagedorn 1910a: 156; Nobuchi 1978a: pl. 1, 1983: 304; Olivier 1795b: 9; Schedl 1962j: 91, 1962p: 201, 1977b: 223–224.

sexspinosus Motschulsky 1863: 515. Syntypes ♀; Des Montagnes de Nura-Ellia et du Birma; IZM, Moscow. Synonymy: Schedl 1962p: 201. References: **(ay)** Francke-Grosmann 1957: 139–144. **(cn)** Beeson 1916: 221–223, 1922c: 495, 1923: 164; Brader 1964: 4; Dupont 1916; Green 1912a: 39, 1916: 608–636; Hagedorn 1913a; Hall 1914: 1–5; Kalshoven 1924c, 1932: 247, 1951: 851; Kleine 1932a: 307; Mathur & Singh 1960b: 14, 1961a: 46, 1961b: 14; Mayne 1917: 1–8; Morstatt 1937: 26; Roonwal 1954: 19; Schultze 1923: 40; Stebbing 1903a: 281; Thompson, C. H. 1960; Webb & Jones 1957: 37, 42, 1958: 383. **(cc)** Beeson 1922c: 495, 1923: 164; Francke-Grosmann 1957. **(hb)** Beeson 1916a: 221, 1922c: 495, 1923: 164; Blandford 1894b; Braune 1941; Browne 1935a, 1941: 65, 1949b: 892, 1949c: 178–189, 1961c: 175–176, 1963a: 246; Cotes 1893a; Hagedorn 1913a: 5–25; Jones, Roberts, & Baker 1959: 10, 14, 23; Kalshoven 1924c: 10, 1958a: 186, 1959a: 224, 1959c: 167; Kleine 1932a: 307; Lengerken 1939: 257, 1954: 325; Neger 1911: 50–58; Roberts 1969: 125; Schedl 1959p: 18; Stebbing 1903a: 284, 1911a: 6; Webb & Jones 1958: 383. **(ds)** Beeson 1916a, 1922c: 495, 1923: 164, 1930: 257–258, 1941: 402; Bhasin, Roonwal, & Singh 1958: 17, 38, 68; Blandford 1894b: 221, 1895a: 495, 1896c, 1897b; Brimblecombe 1953: 18; Browne 1935a, 1961c:

175, 1963a: 246; Cotes 1893a; Gardner 1957a; Gemminger & Harold 1872: 2696; Green 1912a: 39; Hagedorn 1907a, 1907b, 1910d: 110–111, 1913a; Kalshoven 1932: 247, 1951: 851, 1958a: 186, 1959b: 96–97, 1959c: 167; Kleine 1912a: 212, 1913b: 168, 1914b: 268, 274, 278, 288, 290, 312, 1932a: 307, 1934a: 177; Lefroy & Howlett 1909: 395; Mathur & Singh 1960b: 14, 1961a: 46, 1961b: 14; Mayne & Donis 1962: 306; Miwa 1931: 269; Murayama 1934d: 511; Nobuchi 1967: 23; Nonveiller 1984: 40; Roba 1935: 338; Roonwal 1954: 19–67; Sampson 1914: 389; Schedl 1936d: 5, 1936g: 531, 1936j: 20, 1937f: 15, 1959a: 512, 1959p: 18, 1959q: 706, 1962i: 72, 1971a: 274, 1979f: 103; Schultze 1923: 401; Spahr 1981; Stebbing 1903a: 284; Strohmeier 1911b: 25; Thompson, C. H. 1960, 1963: 43; Wichmann 1954: 503, 524; Wood, S. L. 1957e: 1273. **(tx)** Beeson 1930: 257–258; Blandford 1893a, 1893b: 63–64, 1894b, 1896c; Eggers 1922b: 174, 1923a: 130, 193–194, 1925: 153, 1927b: 407, 1927c: 102–103, 1939c: 114; Eichhoff 1876a: 379; Green 1912a: 39; Hagedorn 1907a: 261, 1907b: 111–112, 1908: 337, 1910a: 156, 1912b: 33–36; Hopkins 1914: 121, 135; Kalshoven 1959a: 224, 1959b: 96; Keler 1928: 29; Motschulsky 1863: 515; Murayama 1934: 293; Nunberg 1959a: 438; Sampson 1911: 382–383, 1914: 389; Schedl 1933e: 105, 1937f: 1, 1939f: 40–41, 1939g: 170, 1940b: 435, 1942a: 171, 1942d: 45, 1951f: 40, 1951i: 44, 1951k: 154, 1952c: 62, 1952g: 49, 52, 1953b: 124, 1953d: 69, 1953g: 243, 1954a: 144, 1954d: 873, 1954e: 54, 1955b: 279, 282, 1955d: 270, 1959a: 512, 1959q: 706, 1961e: 128, 1962b: 185–187, 1962p: 201, 1964d: 212, 1965g: 21, 1969d: 7–12; Schedl, W. 1962: 364; Strohmeier 1911b: 17, 25; Wood, S. L. 1969c: 118; Wylie & Yule 1977.

abnormis Eichhoff 1869b: 282 (*Xyleborus*). Syntypes ♀; Ceylon; Hamburg Museum, lost. Synonymy: Eichhoff 1878b: 378.

References: **(ds)** Blandford 1896c: 63; Gemminger & Harold 1872: 2684; Ghesquiere 1933a: 31, 36, 1933b: 781–786. **(tx)** Blandford 1896c: 63; Eichhoff 1869b: 282, 1876a: 378–379, 1878b: 341–342, 479, 1886: 25–26, 1898b: 341; Hagedorn 1905: 412, 1909: 733, 1912b: 33–36; Sampson 1911: 382; Schedl 1962j: 92; Strohmeier 1911: 25.

squamulosus (Eggers) 1923a: 193 (*Xyleborus*). Lectotype ♀; Pangherang-Pisang auf Sumatra; USNM, Washington, designated by Anderson & Anderson 1971: 31.

Distribution: Indonesia (Mentawai, Sumatra).

References: **(tx)** Anderson, W. H. & Anderson 1971: 31; Browne 1955: 351; Eggers 1923a: 193, 1927b: 407.

squamulosus auratus Eggers 1923a: 193 (*Xyle-*

borus). Lectotype ♀; Bandar Baroe an der Ostkust Sumatras; Eggers Collection, in NHMW, Wien, designated by Schedl 1979c: 236.

Notes: (3) Schedl note in his collection treated this as a subspecies of *limbus*; it could be a good species.

References: (tx) Anderson, W. H. & Anderson 1971: 5; Eggers 1923a: 193–194; Schedl 1979c: 236.

tarsalis Schedl 1936j: 26. Holotype ♀; Borneo; Schedl Collection in NHMW, Wien.

Distribution: Indonesia (Borneo).

References: (ds) Schedl 1936j: 26, 1964g: 241, 1965g: 24. (tx) Eggers 1940d: 154; Schedl 1936j: 26, 1954c: 154, 1964g: 246, 1965g: 24, 1979c: 250.

Genus *Schedlia* Browne

SCHEDLIA BROWNE 1950b: 641. Type-species: *Xyleborus sumatranus* Hagedorn, original designation.

Keys: Bright 1980b: 371, Browne 1950b: 642.

References: (hb) Browne 1961c: 183; Wood, S. L. 1986a: 84. (ds) Bright 1980b: 369; Wood, S. L. 1986a: 84. (tx) Bright 1980b: 369; Browne 1950b: 641; Wood, S. L. 1986a: 84.

allecta (Schedl) 1942d: 33 (*Xyleborus*). Holotype ♀; Saigon; Schedl Collection in NHMW, Wien.

Distribution: Asia (Vietnam).

References: (ds) Bright 1980: 369; Browne 1950b: 641–642. (tx) Bright 1980b: 371; Browne 1950b: 641–642, 1968a: 132; Schedl 1942d: 33, 1979c: 16.

brownei Bright 1980b: 369. Holotype ♀; Fly River, 5 miles below Palmer River, Papua [New Guinea]; AMNH, New York.

Figures: Bright 1980b: 371.

Distribution: New Guinea.

References: (tx) Bright 1980b: 369, 371.

convexa Bright 1980b: 370. Holotype ♀; Mt. Riu, Sudest Isl., 250–350 m, Papua, New Guinea; AMNH, New York.

Figures: Bright 1980b: 371.

Distribution: New Guinea.

References: (tx) Bright 1980b: 370–371.

paraconvexa Bright 1980b: 370. Holotype ♀; Abaleti, Rossei Isl., 0–50 m, Papua, New Guinea; AMNH, New York.

Distribution: New Guinea.

References: (ds) Browne 1986c: 661; Ohno et al. 1987: 89. (tx) Bright 1980b: 370.

praeusta (Eggers) 1923a: 167 (*Xyleborus*). Holotype ♀; Deutsch Neu Guinea, Kaiserin Augustafluss; MNB, Berlin.

Distribution: New Guinea.

References: (ds) Bright 1980b: 369. (tx) Bright 1980b: 371; Browne 1950b: 641; Eggers 1923a: 167; Schedl 1940b: 434–435, 1952k: 163.

sumatrana (Hagedorn) 1908: 381 (*Xyleborus*). Syntypes ♀; Sumatra-Palembang; Hamburg Museum, lost.

Distribution: Asia (Malaya/ Vietnam), Indonesia (Borneo, Sumatra), New Guinea.

Hosts: *Balanocarpus heimii*, *Dipterocarpus* sp., *Dryobalanops oblongifolia*, *Hopea* sp., *Shorea leprosula*, S. spp.

References: (ec) Browne 1958b. (hb) Beaver & Browne 1978: 598; Browne 1958b, 1961c: 183.

(ds) Beaver & Browne 1978: 598; Bright 1980b: 369; Browne 1950: 643, 1961a: 307, 1961c: 183, 1968a: 133, 1984b: 286; Hagedorn 1910d: 111; Kleine 1913b: 163, 1914b: 268; Sampson 1919: 109, 111. (tx) Bright 1980b: 371; Browne 1950: 641–643, 1968a: 132; Eggers 1923a: 167; Hagedorn 1908: 381, 1910a: 157; Sampson 1919: 109, 111; Schedl 1939e: 331, 1942a: 171, 1942c: 188, 192, 1942d: 33–34.

usitata (Schedl) 1942c: 188 (*Xyleborus*). Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (ds) Bright 1980b: 369; Browne 1950: 643. (tx) Bright 1980b: 371; Browne 1950: 641–643; Schedl 1942c: 188, 1942d: 33, 1979c: 262.

vulpina (Schedl) 1942a: 192 (*Xyleborus*). Lectotype ♀; Malaya: Selangor, Ampang; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 269.

Distribution: Asia (Malaya).

Hosts: *Quercus* sp.

References: (hb) Browne 1961c: 183. (ds) Bright 1980b: 369. (tx) Bright 1980b: 369; Browne 1950b: 641–642; Schedl 1942a: 191–192, 1942d: 33, 1979c: 269.

Genus *Coptodryas* Hopkins

COPTODRYAS HOPKINS 1915b: 10, 54. Type-species: *Coptodryas confusa* Hopkins, original designation.

Microperus Wood 1980c: 94. Type-species:

Xyleborus theae Eggers, original designation.

Synonymy: Wood 1986a: 84, 1986c: 265.

References: (tx) Wood, S. L. 1980c: 94, 1986a: 84, 1986c: 265.

Adryocoetes Eggers 1951: 370. Type-species: *Adryocoetes nitidus*, nomen nudum, = *Xyleborus pullus* Schedl. Synonymy: Schedl 1952b: 371.

References: (tx) Eggers 1951: 370; Schedl 1952b: 370–371.

References: (hb) Wood, S. L. 1986a: 84. (ds) Wood, S. L. 1986a: 84. (tx) Hopkins 1915b: 10, 54; Wood, S. L. 1986a: 84.

abbreviata (Schedl) 1942a: 195 (*Xyleborus*). Lectotype ♀; Malaya, Selangor, Bilohi F. R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 8.

Distribution: Asia (Malaya).

Hosts: *Shorea leprosula*.

References: **(ds)** Browne 1961c: 119. **(tx)** Schedl 1942a: 195, 1979c: 8.

alpha (Beeson) 1929: 239 (*Xyleborus*). Holotype ♀; India: Sunderbans Div.; BMNH, London.

Distribution: Asia (Ghizhou in China/ Assam, Bengal in India/ Malaya/ Sri Lanka/ Vietnam), Samoan Islands.

Hosts: *Chrysophyllum roxburghii*, *Cordia grandis*, *Shorea* sp., *Vatica lanceaefolia*.

Notes: (1) Described by Sampson 1923b: 289, but without an acceptable Linnaean name, as *bicolor* var. *a*.

References: **(cn)** Mathur & Singh 1960a: 23, 1961a: 37, 1961b: 71; Roonwal 1954: 48. **(ds)** Mathur & Singh 1960a: 23, 1961a: 37, 1961b: 71; Roonwal 1954: 48; Schedl 1959a: 505, 1971a: 271, 1971c: 364, 1973c: 378. **(tx)** Beeson 1929: 239, 1930: 225; Sampson 1923b: 289; Schedl 1959a: 505.

artographa (Schedl) 1942d: 44 (*Xyleborus*). Lectotype ♀; Mt. Gede, 800 m, Tofroo, Gombang, Mount Salak, Java; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 27.

Distribution: Indonesia (Java).

Hosts: *Albizzia falcata*, *Casurina equisetifolia*, *Marumia muscosa*.

References: **(bv)** Gray, B. 1974c. **(hb)** Gray, B. 1974c; Kalshoven 1959c: 148. **(ds)** Kalshoven 1959c: 148. **(tx)** Schedl 1942d: 44, 1979c: 27.

atava (Schedl) 1979g: 104 (*Xyleborus*). Holotype ♀; Papua, Bulolo, Morobe District, Upper Manki L. A.; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: **(tx)** Schedl 1979g: 104.

bella (Sampson) 1921: 31 (*Xyleborus*). Holotype ♀; Mt. Matang, Borneo; BMNH, London.

Figures: Nunberg 1978: 111.

Distribution: Asia (Malaya), Indonesia (Borneo, Moluccas).

Hosts: *Vatica* sp.

References: **(hb)** Browne 1961c: 165. **(ds)** Browne 1961c: 165; Sampson 1921: 31. **(tx)** Browne 1962c: 204–205; Nunberg 1978: 110–111; Sampson 1921: 31; Schedl 1938g: 427.

camela (Eggers) 1940d: 152 (*Xyleborus*). Holotype ♀; Java (Batoerraden, G. Slamet); Eggers Collection, in NHMW, Wien.

Distribution: Indonesia (Java).

References: **(tx)** Eggers 1940d: 152; Schedl 1979c: 50.

chimbui (Schedl) 1973f: 74 (*Xyleborus*). Holotype ♀; Peria Creek, Kwagira River, Milne Bay Dist. [New Guinea]; AMNH, New York.

Distribution: New Guinea.

References: **(tx)** Schedl 1973f: 74, 1979c: 56.

chimbui Schedl 1973e: 90 (*Xyleborus*). Holotype ♀; Peria Creek, Kwagira River, Milne Bay Dis-

trict [New Guinea]; AMNH, New York, preoccupied by Schedl 1973f: 74.

Notes: (1) This is an apparent unintentional redescription of the *chimbui* Schedl that was named on p. 74 in the same journal.

References: **(tx)** Schedl 1973e: 90.

chrysophylli (Eggers) 1930d: 205 (*Xyleborus*). Holotype ♀; Assam (Longai Reserve, Sylhet); FRI, Dehra Dun.

Distribution: Asia (Assam, Bengal in India).

Hosts: *Chrysophyllum roxburghii*.

References: **(ds)** Beeson 1930: 229; Kleine 1934a: 175. **(tx)** Beeson 1930: 229; Eggers 1930d: 205.

confusa Hopkins 1915b: 54. Holotype ♀; Pagbilao, P.I.; USNM, Washington.

Figures: Browne 1972b: 22.

Distribution: Asia (Malaya), Indonesia (Borneo), Philippine Islands.

Hosts: *Dipterocarpus grandiflorus*, *Hopea ferrea*, *Shorea curtisii*, *S. multiflora*, *S. parviflora*, *Vatica* sp.

References: **(ay)** Lhoste & Roche 1960. **(ds)** Kirk 1969; Kleine 1934a: 156; **(tx)** Hopkins 1915b: 54; Nobuchi 1983: 302; Schedl 1942a: 191, 1979c: 62; Wood, S. L. 1960a: 51.

cryphaloides Schedl 1942a: 191 (*Xyleborus*). Holotype ♀; Malaya, Selangor, Buloh F.R.; BMNH, London.

Notes: (1) A note by Schedl in his collection lists this as a synonym of *confusa* Hopkins.

References: **(hb)** Beaver & Browne 1978: 607; Browne 1961c: 161. **(ds)** Beaver & Browne 1978: 607; Browne 1961a: 305, 1961c: 161, 1981b: 598; Schedl 1954c: 154, 1958b: 101, 1964c: 304. **(tx)** Browne 1972b: 22; Schedl 1942a: 191.

corporaali (Eggers) 1923a: 210 (*Xyleborus*). Lectotype ♀; Kotangan an der Ostkuste Sumatras; USNM, Washington, designated by Anderson & Anderson 1971: 10.

Distribution: Asia (Bhutan/ Malaya), Indonesia (Java, Sumatra).

Hosts: *Hevea brasiliensis*, *Shorea leprosula*.

References: **(cn)** Kleine 1932a: 307; Mathur & Singh 1961a: 40. **(hb)** Browne 1961c: 146; Kleine 1932a: 307. **(ds)** Beeson 1961: 303; Browne 1961c: 164–165, 1986c: 663; Kleine 1932a: 307, 1934a: 175; Mathur & Singh 1961a: 40; Ohno et al. 1988a: 93, 1989: 61; Schedl 1936d: 2, 1975c: 383. **(tx)** Anderson, W. H. & Anderson 1971: 10; Eggers 1922a: 88, 1923a: 210, 1927a: 189, 1930d: 204–205; Schedl 1936d: 2, 1942d: 6.

costipennis (Schedl) 1959a: 501 (*Xyleborus*). Holotype ♀; Ceylon: Denawake Group; Schedl Collection in NHMW, Wien.

Distribution: Asia (Sri Lanka).

References: **(tx)** Schedl 1959a: 501, 1979c: 67.

curvidentis (Schedl) 1958b: 104 (*Xyleborus*). Lectotype ♀; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 73.

Distribution: Asia (Malaya), Indonesia (Borneo). Hosts: *Balanocarpus heimii*, *Fissistigma elegans*, *Shorea leprosula*.

References: (ds) Browne 1961c: 108, 1962c: 202. (tx) Schedl 1958b: 104, 1979c: 72–73.

cylindrica (Eggers) 1927c: 94 (*Xyleborus*). Lectotype ♀; Philippinen: Luzon, Provinz Mountain, Balaban; USNM, Washington, designated by Anderson & Anderson 1971: 11.

Distribution: Asia (Malaya), Indonesia (Borneo), Philippine Islands (Luzon).

Hosts: *Artocarpus scortechnii*.

References: (ds) Browne 1961c: 156, 1965a: 189, 1980b: 380; Schedl 1966b: 50. (tx) Anderson, W. H. & Anderson 1971: 11; Eggers 1927b: 402, 1927c: 94–95; Nobuchi 1983: 302; Schedl 1942a: 196, 1979c: 74.

diversicolor (Eggers) 1923a: 202 (*Xyleborus*). Holotype ♀; Butuan auf Mindanao; SMTD, Dresden.

Distribution: Asia (Malaya), Indonesia (Borneo), New Guinea, Philippine Islands (Mindanao).

Hosts: *Dipterocarpus baudii*, *Endospermum malaccense*, *Koompassia excelsa*, *Nephelium* sp., *Pasania sundaica*.

References: (cn) Mathur & Singh 1960b: 84. (hb) Browne 1961c: 135. (ds) Beeson 1961: 304; Browne 1961c: 135, 1965a: 189, 1980c: 482; Mathur & Singh 1960b: 84; Nobuchi 1978a: 42, 1979a: 406; Ohno et al. 1988a: 93, 1989: 61; Schedl 1966b: 51. (tx) Browne 1970: 573; Eggers 1923a: 202, 1930d: 204; Nobuchi 1983: 302; Schedl 1938g: 426, 1939e: 330, 1939f: 49.

docta (Schedl) 1975f: 364 (*Xyleborus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe District [New Guinea]; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1975f: 364, 1979c: 83.

elegans (Sampson) 1923b: 288 (*Xyleborus*). Holotype ♀; Bengal: Raja Bhat Khawa; BMNH, London.

Distribution: Asia (Burma/ Bengal, Madhya Pradesh in India), Indonesia (Java).

Hosts: *Albizzia moluccana*, *Eugenia jambolana*, *Lansium* sp., *Shorea robusta*.

References: (cn) Mathur & Singh 1961a: 46. (cc) Banerjee 1983. (hb) Kalshoven 1959c: 152. (ds) Beeson 1930: 214, 233, 1961: 304; Kalshoven 1959c: 152; Kleine 1934a: 173; Mathur & Singh 1961a: 46; Schedl 1962b: 186. (tx) Beeson 1930: 214, 233; Sampson 1923b: 288; Schedl 1954a: 141, 1958k: 154.

concinus Beeson 1930: 214 (*Xyleborus*). Holotype ♀; Burma: Kondan Reserve, Insein; 4 at

FRI, Delra Dun, but none of these are labeled as the holotype. Synonymy: Wood 1989: 171.

References: (cn) Roonwal 1954: 48. (hb) Kalshoven 1959c: 152. (ds) Beeson 1930: 214, 1961: 303; Kalshoven 1959c: 152; Roonwal 1954: 48. (tx) Beeson 1930: 214.

flexiocostatus Schedl 1942d: 31 (*Xyleborus*).

Lectotype ♀; Java, Buitenzorg; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 98. Synonymy: Schedl 1958k: 154.

References: (tx) Schedl 1942d: 31, 1958b: 104, 1958k: 154, 1959a: 501, 1979c: 98.

erinacea (Eggers) 1927c: 103 (*Xyleborus*). Holotype ♀; Philippinen: Mindanao, Prov. Lanao, Kolambagan; Eggers Collection, in NHMW, Wien. Distribution: Philippine Islands (Mindanao).

References: (ds) Schedl 1966b: 52. (tx) Eggers 1927c: 103–104; Nobuchi 1983: 302; Schedl 1979c: 91.

eucalyptica (Schedl) 1938f: 51 (*Xyleborus*). Lectotype ♀; North Queensland, Geagana [actually Gadgarra]; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 92.

Distribution: Australia (Queensland).

Hosts: *Araucaria cunninghamii*, *Cardwellia sublimus*, *Endiandra palmerstonii* [not *Eucalyptus palmerstonii* as reported by Schedl], *Euroschinus falcatus*, *Flindersia brayleyana*, *Nauclea orientalis*.

References: (cn) Brimblecombe 1951. (hb) Brimblecombe 1951. (tx) Schedl 1938f: 51–52, 1948g: 25, 1954a: 152, 1979c: 92.

exsculpta (Eggers) 1927c: 101 (*Xyleborus*). Lectotype ♀; Philippinen: Mindanao, Prov. Surigao, Surigao; USNM, Washington, designated by Anderson & Anderson 1971: 13.

Distribution: Philippine Islands (Luzon, Mindanao).

References: (ds) Schedl 1966b: 53. (tx) Anderson, W. H. & Anderson 1971: 13; Eggers 1927c: 101–102; Nobuchi 1983: 302; Schedl 1979c: 94.

extensa (Schedl) 1955b: 301 (*Xyleborus*). Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1955b: 281, 301, 1979c: 94.

gorontalosa (Schedl) 1939f: 50 (*Xyleborus*). Lectotype ♀; Gorontalo, Celebes; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 107. Distribution: Indonesia (Celebes).

Hosts: Rattan.

References: (hb) Kalshoven 1959c: 149. (ds) Kalshoven 1959c: 149. (tx) Schedl 1939f: 49–50, 1979c: 107.

huangi (Browne) 1983d: 34 (*Xyleborus*). Holotype ♀; China: Fujian, Chongan; IZAS, Beijing. Distribution: Asia (Fujian in China).

References: (tx) Browne 1983d: 34.

intermedius (Eggers) 1923a: 201 (*Xyleborus*). Lectotype ♀; Neu Pommern (Ralum); USNM, Washington, designated by Anderson & Anderson 1971: 16.

Distribution: Asia (Malaya), Indonesia (Java), Australia, New Britain Island, New Guinea, Philippine Islands.

References: (bv) Gray, B. 1974c. (hb) Kalshoven 1959c: 144. (ds) Browne 1961c: 201, 1984b: 287; Gray, B. 1974c; Kalshoven 1959c: 144; Ohno et al. 1989: 62; Schedl 1977b: 58, 1971c: 364, 1979a: 158. (tx) Anderson, W. H. & Anderson 1971: 16; Browne 1962: 201; Eggers 1923a: 201–202, 1927b: 408, 1940d: 144, 1941b: 225; Nobuchi 1983: 303; Schedl 1969a: 213.

izuensis (Murayama) 1952a: 16 (*Xyleborus*). Syntypes ♀; Gaisho, Izu peninsula, Shizuoka pref., Japan; Murayama Collection in USNM, Washington. Distribution: Asia (Japan).

Hosts: *Cinnamomum camphora*.

References: (ds) Murayama 1952a: 16, 19, 1954b: 179; Nobuchi 1985c: 25. (tx) Murayama 1952a: 16, 1954b: 179.

judenkoi (Schedl) 1959a: 507 (*Xyleborus*). Syntypes ♀; Ceylon: Millawitiya; Schedl Collection in NHMW, Wien.

Distribution: Asia (Sri Lanka), Indonesia (Borneo). Notes: (3) Schedl 1979c: 130 (citation of holotype invalid).

References: (ds) Schedl 1959a: 507. (tx) Schedl 1958h: 498, 1959a: 507, 1979c: 130.

kirishimanus (Murayama) 1955: 85 (*Xyleborus*). Syntypes ♂; Mt. Kirishima, Miyazaki pref., Kyushu, Japan; Murayama Collection in USNM, Washington.

Figures: Nobuchi 1981b: 153.

Distribution: Asia (Japan).

Hosts: *Ilex macropoda*, *Quercus acuta*, *Q. glauca*.

References: (ds) Nobuchi 1985c: 25. (tx) Murayama 1955: 85; Nobuchi 1981b: 152–153.

libra (Eggers) 1923a: 202 (*Xyleborus*). Lectotype ♀; Ralum auf Neupommern (Neubritannien); USNM, Washington, designated by Anderson & Anderson 1971: 17.

Distribution: New Britain Island.

References: (bv) Gray, B. 1974c. (hb) Gray, B. 1974c. (ds) Beeson 1938: 293; Schedl 1975i: 346. (tx) Anderson, W. H. & Anderson 1971: 17; Eggers 1923a: 202; Schedl 1971f: 155.

bismarcensis Browne 1966: 255 (*Xyleborus*).

Holotype ♀; Bismarck Islands, Mussau: Talumalaus; UZMC, Copenhagen. Synonymy: Schedl 1971f: 155.

References: (tx) Browne 1966: 255; Schedl 1971f: 155.

mus (Eggers) 1930d: 203 (*Xyleborus*). Holotype ♀; Bengal (Chittagong Hill Tracts, Sitapahar); FRI, Dehra Dun.

Distribution: Asia (Bangladesh/ Guizhou in China).

Hosts: *Gmelina arborea*, *Michelia champaca*.

References: (cn) Mathur & Singh 1960b: 17. (ds) Beeson 1930: 250, 1961: 308; Kleine 1934a: 174; Mathur & Singh 1960b: 17. (tx) Beeson 1930: 250; Eggers 1930d: 203–204; Schedl 1979c: 162.

myristicae (Schedl) 1939f: 49 (*Xyleborus*). Lectotype ♀; Sumatra W., Padang; Schedl Collection in NHMW, Wien.

Distribution: Asia (Malaya), Indonesia (Java, Sumatra).

Hosts: *Castanea argentea*, *Myristica fragrans*.

References: (hb) Browne 1961c: 135; Kalshoven 1959c: 149. (ds) Browne 1961c: 135; Kalshoven 1959c: 149. (tx) Kalshoven 1959b: 95, 1960a; Schedl 1939f: 49–50, 1953c: 290, 1979c: 162.

theae Eggers 1940d: 144 (*Xyleborus*). Holotype ♀; Java (Buitenzorg); Kalshoven Collection, 1 Eggers cotype, in NHMW, Wien. Synonymy: Wood 1989: 171.

References: (hb) Kalshoven 1959c: 144. (ds) Kalshoven 1959c: 144. (tx) Browne 1966: 255; Eggers 1940d: 144–145; Schedl 1942d: 7, 1951i: 51, 1954a: 144, 151, 1979c: 252; Wood, S. L. 1989: 171.

brevipilosus Eggers 1940d: 145 (*Xyleborus*). Holotype ♀; Java (Walikoekoek Pernalang; Kalshoven Collection. Synonymy: Kalshoven 1959b: 95, Wood 1989: 171.

References: (tx) Eggers 1940: 145; Kalshoven 1959b: 95; Wood, S. L. 1989: 171.

cylindripennis Schedl 1954a: 152 (*Xyleborus*). Lectotype ♀; Java, Batoerraden, G. Slamet; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 74. Synonymy: Wood 1989: 171.

References: (bv) Gray, B. 1974c. (hb) Gray, B. 1974c. (tx) Schedl 1954a: 141, 152, 1959a: 501, 1979c: 74; Wood, S. L. 1989: 171.

nudibrevis (Schedl) 1942a: 195 (*Xyleborus*). Holotype ♀; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien.

Distribution: Asia (Malaya).

Hosts: *Elateriospermum* sp.

References: (hb) Browne 1961c: 119. (ds) Browne 1986c: 662. (tx) Browne 1955: 356; Schedl 1942a: 195, 1952b: 370, 1979c: 172.

nudipennis (Schedl) 1951i: 63 (*Xyleborus*). Holotype ♀; Java, Buitenzorg, 250 m; Schedl Collection in NHMW, Wien.

Distribution: Asia (Sri Lanka), Indonesia (Java).

Hosts: *Cinnamomum zeylanicum*, *Lausium domesticum*.

References: (hb) Kalshoven 1959c: 152. (ds) Kalshoven 1959c: 152; Schedl 1942d: 5, 1951i: 63, 1959a: 497. (tx) Schedl 1942d: 5, 1951i: 63, 1959a: 497, 1979c: 173.

nugax (Schedl) 1939e: 353 (*Xyleborus*). Lectotype ♀; Malaya, Selangor: Sungei Buloh For. Res., Perak: Trolak For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 173. Distribution: Asia (Malaya), Indonesia (Borneo, Java, Sumatra).

Hosts: *Actinomorpha fragrans*, *Arthrophyllum diversifolium*, *Artocarpus lanceaefolius*, *Castanopsis sumatrana*, *Dipterocarpus baudii*, *Dryobalanops oblongifolia*, *Garcinia* sp., *Hevea* sp., *Memeceylon* sp., *Myristica fragrans*, *Scaphium* sp., *Shorea curtisii*, *S. leprosula*, *S. macroptera*, *Strombosia javanica*, *Swietenia macrophylla*, *Theobroma cacao*, *Whitfordiodendron pubescens*, *Xanthophyllum* sp. References: (cn) Yunus & Hua 1980: 230. (hb) Beaver & Browne 1978: 610; Browne 1961c: 134–135; Kalshoven 1959c: 149. (ds) Beaver & Browne 1978: 610; Beeson 1961: 308; Browne 1961c: 134, 1981a: 126; Kalshoven 1959c: 149. (tx) Browne 1970: 573; Kalshoven 1959b: 97; Schedl 1939e: 353–354, 1942a: 171, 1979c: 173.

pertuberculatus Eggers 1940d: 144 (*Xyleborus*). Holotype ♀; West Java (Mount Tjampea); Kalshoven Collection [1 Eggers cotype, in NHMW, Wien]. Synonymy: Kalshoven 1959b: 97.

References: (hb) Kalshoven 1958a: 186. (ds) Kalshoven 1958a: 186, 1959c: 149. (tx) Eggers 1940d: 144; Kalshoven 1959b: 97; Schedl 1939f: 49, 1942a: 171, 1979c: 191.

fragosus Schedl 1942d: 41 (*Xyleborus*). Lectotype ♀; Java, Buitenzorg, 250 m; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 99. Synonymy: Wood 1989: 171.

References: (hb) Browne 1961c: 151; Kalshoven 1959c: 150. (ds) Browne 1961c: 151; Kalshoven 1959c: 150. (tx) Schedl 1942d: 41, 1953c: 290, 1979c: 100; Wood, S. L. 1989: 171.

obtusicollis (Schedl) 1938g: 427 (*Xyleborus*). Lectotype ♀; Naganaga, Zamboanga Province, Mindanao, Philippines; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 175. Distribution: Philippine Islands (Mindanao).

Hosts: *Vatica* sp.

Notes: (3) Schedl 1942a: 192 (described male).

References: (ds) Schedl 1938g: 427, 1977b: 62. (tx) Nobuchi 1983: 303; Schedl 1938g: 427, 1942a: 191–192, 1950g: 894, 1961c: 107, 1979c: 175.

parva (Lea) 1893: 321 (*Xylopertha*). Holotype ♀; Richmond River [New South Wales, Australia]; SAM, Adelaide.

Distribution: Australia (New South Wales), Philippine Islands, Solomon Islands.

Hosts: *Eucalyptus torelliana*.

References: (cn) Froggatt 1926a, 1927. (hb) Froggatt 1926a, 1927. (ds) Brimblecombe 1953: 30; Schedl 1961f: 94, 1966b: 63, 1972a: 144, 1980b: 184. (tx) Eggers 1933b: 3, 1941a: 108; Lea 1893: 321, 1904: 106, 1910: 138; Schedl 1936g: 529, 1961f: 94, 1964m: 314.

pedella (Schedl) 1969a: 213 (*Xyleborus*). Holotype ♀; Philippine Islands, Diapitan to Tokyo (Japan), imported; PPST, Tokyo.

Distribution: Philippine Islands.

Hosts: Lauan log.

References: (ds) Nobuchi 1978a: 44. (tx) Nobuchi 1983: 303; Schedl 1969a: 213–214, 1979c: 186.

perparva (Sampson) 1922b: 151 (*Xyleborus*). Syn-types ♀; Bengal: Kurseong Div.; BMNH, London. Distribution: Asia (Bangladesh/ Burma/ Guizhou in China/ Andaman Islands, Assam, Bengal in India/ Malaya), Indonesia (Borneo).

Hosts: *Canarium euphyllum*, *Chrysophyllum roxburghii*, *Dipterocarpus baudii*, *Elacocarpus* sp., *Elateriospermum taposi*, *Hopea ferrea*, *Pentacme suavis*, *Shorea curtisii*, *S. macroptera*, *S. maxwelliana*, *S. ovata*, *S. robusta*, *Swintonia floribunda*, *Vatica* sp.

References: (cn) Kleine 1932a: 307; Mathur & Singh 1961a: 40; Yunus & Hua 1980: 230. (cc) Beeson 1923. (hb) Beaver & Browne 1978: 610; Beeson 1923; Browne 1938a, 1961c: 118–119; Kleine 1932a: 307. (ds) Beaver & Browne 1978: 610; Beeson 1923, 1930: 252, 1961: 308; Browne 1938a, 1962c: 202, 1983: 555; Kleine 1932a: 307, 1934a: 175; Mathur & Singh 1961a: 40; Ohno, Yoneyama, & Nakazawa 1987: 94; Ohno et al. 1988a: 94; Schedl 1936j: 20. (tx) Beeson 1930: 252; Eggers 1923a: 212; Sampson 1922b: 151; Schedl 1936j: 20, 1939e: 332, 1942a: 171, 195.

pubipennis (Schedl) 1974c: 263 (*Xyleborus*). Holotype ♀; Nord-Vietnam, L. Thsi Nguyen; MHNH, Bucharest.

Distribution: Asia (Vietnam).

References: (ds) Schedl 1974c: 262. (tx) Schedl 1974c: 262–263, 1979c: 203.

pulla (Schedl) 1952b: 370 (*Xyleborus*). Holotype ♀; Philippines, Calapan; Eggers Collection, in NHMW, Wien.

Distribution: Philippine Islands.

Notes: (1) Schedl 1952b: 371 (type was in Eggers Collection under *Adryocoetes nitidus*, nomen nudum, synonymy).

References: (ds) Schedl 1966b: 66. (tx) Nobuchi 1983: 303; Schedl 1952b: 370–371, 1959a: 507, 1979c: 203.

punctipennis (Schedl) 1953c: 302 (*Xyleborus*). Lectotype ♀; Malaya, Kelantan, Tenanger F. R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 205.

Distribution: Asia (Malaya).

Hosts: Euphorbiaceae sp.

References: (hb) Browne 1961c: 161. (ds) Browne 1961c: 161. (tx) Schedl 1953c: 302, 1964g: 249, 1979c: 205.

quadricostata (Schedl) 1942d: 30 (*Xyleborus*). Lectotype ♀; Java, Mt. Gede; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 208.

Distribution: Asia (Bengal in India/ Malaya), Indonesia (Borneo, Java).

Hosts: *Elacocarpus* sp., *Shorea parvifolia*.

Notes: (3) Beeson 1941 (cited *tetracanthus*, nomen nudum, a synonym).

References: (hb) Browne 1961c: 108. (ds) Browne 1962c: 201; Schedl 1971c: 365. (tx) Beeson 1941; Schedl 1942d: 30, 1953c: 290, 1955b: 104, 1979c: 208.

recidens (Sampson) 1923b: 287 (*Xyleborus*). Holotype ♀; Khariabandar, Lower Tondu, India; BMNH, London.

Distribution: Asia (Bangladesh/ Burma/ Guizhou in China/ Andaman Islands, Bengal in India/ Malaya/ Thailand), Indonesia (Borneo, Enggano), New Guinea, Philippine Islands.

Hosts: *Albizzia stipulata*, *Hymenodictyon excelsum*, (?) *Lindera latifolia*, *Shorea robusta*, *Stryax benzoin*, *Terminalia bialata*.

References: (cn) Mathur & Singh 1961a: 46, 1961b: 28; Roonwal 1954: 45; Wylie & Shanahan 1975. (ce) Beeson 1923. (hb) Beeson 1923; Browne 1961c: 150; Wylie & Shanahan 1975. (ds) Beeson 1923, 1930: 252; Browne 1961c: 150, 1966: 255; Kleine 1934a: 175; Mathur & Singh 1961a: 46, 1961b: 28; Roonwal 1954: 45; Schedl 1966b: 67. (tx) Beeson 1929: 247–248, 1930: 252; Browne 1955: 354; Eggers 1925: 154, 1927b: 391; Nobuchi 1983: 303; Sampson 1923b: 287.

minusculus Eggers 1923a: 212 (*Xyleborus*). Lectotype ♀; Engano (Bua Bua); USNM, Washington, designated by Anderson & Anderson 1971: 21. Synonymy: Eggers 1925: 154, 1927b: 391.

References: (tx) Anderson, W. H. & Anderson 1971: 20; Eggers 1923a: 212, 1925: 154, 1927b: 391; Schedl 1955b: 301.

minutissimus Eggers 1930d: 204 (*Xyleborus*). Holotype ♀; Chitagong Hill Tracts (Sitapahar Reserve); FRI, Dehra Dun. Synonymy: Wood 1989: 171.

References: (cn) Mathur & Singh 1960b: 61; Roonwal 1954: 53. (ds) Beeson 1930: 249; Kleine 1934a: 174; Mathur & Singh 1960b: 61; Roonwal 1954: 53. (tx) Beeson 1930: 249; Eggers 1930d: 204; Schedl 1934d: 90; Wood, S. L. 1989: 171.

crassitarsus Schedl 1936j: 28 (*Xyleborus*). Lectotype ♀; S.E. Borneo, N. Borneo: Samawang, near Sandakan, Philippine Is., Mt. Makiling, Laguna, Luzon; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 67. Synonymy: Browne 1955: 364.

References: (cn) Anonymous 1975c; Vuillaume et al. 1981. (ec) Vuillaume et al. 1981. (ds) Anonymous 1975c; Numberg 1961b: 610; Schedl 1936j: 28, 1938g: 426. (tx) Browne 1955: 364; Schedl 1936j: 28–29, 1938g: 426, 1942a: 170, 1979c: 67.

rosseli (Schedl) 1975m: 34 (*Xyleborus*). Holotype ♀; Abaleti, Rossel Isl., M. Bay Dist.; AMNH, New York, automatic.

Distribution: New Guinea.

References: (tx) Schedl 1975m: 34.

chimbui Schedl 1973f: 75 (*Xyleborus*). Holotype ♀; Abaleti, Rossel Isl., M. Bay Dist.; AMNH, New York, preoccupied by Schedl 1973f: 74.

References: (tx) Schedl 1973f: 75, 1975m: 34.

tenella (Schedl) 1959a: 501 (*Xyleborus*). Syntypes ♀; Ceylon: Millawitiya Estate; Schedl Collection in NHMW, Wien.

Distribution: Asia (Sri Lanka).

Notes: (1) Schedl 1979c: 251 (citation of holotype invalid).

References: (ds) Schedl 1959a: 501. (tx) Schedl 1959a: 501, 1979c: 251.

undulata (Sampson) 1919: 111 (*Xyleborus*). Holotype ♀; Bengal, India; BMNH, London.

Distribution: Asia (Bengal in India/ Malaya), Indonesia (Java).

Hosts: *Shorea leprosula*, *S. robusta*.

References: (cn) Mathur & Singh 1961a: 46. (ce) Beeson 1923. (hb) Beeson 1923. (ds) Beeson 1923, 1930: 262, 1961: 310; Kleine 1934a: 176; Mathur & Singh 1961a: 46; Sampson 1919: 112. (tx) Beeson 1930: 262; Eggers 1927b: 404, 1940d: 144; Sampson 1919: 111–112; Schedl 1936j: 29.

leprosulus Schedl 1936j: 27 (*Xyleborus*). Lectotype ♀; Malay Peninsula, Selangor: Bukit Lagong For. Res., Kepong; Schedl Collection in NHMW, Wien. Synonymy: Wood 1989: 171. References: (cn) Mathur & Singh 1961a: 40. (hb) Browne 1961c: 151. (ds) Browne 1961c: 151; Mathur & Singh 1961a: 40; Schedl 1936j: 27, 1971c: 368. (tx) Schedl 1936j: 27–28, 1939e: 353, 1979c: 138; Wood, S. L. 1989: 171.

vafra (Schedl) 1957e: 880 (*Xyleborus*). Holotype ♀; Tanganyika, Lushoto; BMNH, London.

Distribution: Africa (Tanzania).

Hosts: *Syzygium* sp.

Notes: (3) This is the only African species in the genus; for this reason synonymy or an error in identification is suspected.

References: (ds) Schedl 1962j: 328. (tx) Schedl 1957e: 880, 1962j: 328, 1979c: 263.

Genus *Taphrodasus* Wood

TAPHRODASUS WOOD 1980c: 95. Type-species: *Xyleborus percorthylus* Schedl, original designation.

References: (hb) Wood, S. L. 1986a: 84. (ds) Wood, S. L. 1986a: 84. (tx) Wood, S. L. 1980c: 95, 1986: 84.

cuspidus (Schedl) 1975f: 363 (*Xyleborus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe Dist. [New Guinea]; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1975f: 363, 1979c: 73.

- divisus** (Browne) 1972b: 25 (*Webbia*). Holotype ♀; Malaya: Perak, Ipon; BMNH, London.
Distribution: Asia (Malaya).
Hosts: *Hopca* sp.
References: (ds) Browne 1972b: 25, 1983a: 555.
- penicillatus** (Hagedorn) 1910b: 7 (*Xyleborus*). Syn-types 2 ♀; Sumatra et Java; Hamburg Museum, lost.
Distribution: Asia (Malaya), Indonesia (Borneo, Java, Sumatra).
Notes: (3) Browne 1963c: 57 (cited in *Prowebbia*), 1972b: 25 (cited in *Webbia*).
References: (ds) Browne 1980c: 484, 1983a: 555; Hagedorn 1910d: 108; Kleine 1913b: 163, 1914b: 268. (tx) Anderson, W. H. & Anderson 1971: 24; Browne 1963c: 57, 1972b: 25; Hagedorn 1910a: 155, 1910b: 7; Ohno, Yoneyama, & Nakazawa 1982b: 9; Schedl 1931c: 344–345, 1939j: 577, 1964k: 214.
- percordylus** (Schedl) 1935f: 270 (*Xyleborus*). Lectotype ♀; F.M.S.: Bt. Enggany, Meranti, Selangor, Bangi Mercanti; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 188. Figures: Nunberg 1978: 115.
Distribution: Asia (Malaya), Indonesia (Borneo).
Hosts: *Shorea exima*, *S. leprosula*.
References: (cn) Mathur & Singh 1961a: 38. (hb) Browne 1936a, 1961c: 164. (ds) Beeson 1961: 308; Browne 1936a, 1961c: 164, 1962c: 202; Mathur & Singh 1961a: 38. (tx) Nunberg 1978: 114–115; Schedl 1935f: 270, 1936j: 19, 1979c: 188.
- Genus *Cryptoxyleborus* Schedl
- CRYPTOXYLEBORUS** SCHEDL 1937e: 550. Type-species: *Cryptoxyleborus naevus* Schedl, subsequent designation by Schedl 1962r: 103.
References: (tx) Browne 1960: 201–220, 1961c: 183; Schedl 1937e: 550, 1962r: 103.
- barbieri** Schedl 1953b: 128. Lectotype ♀; Saigon; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 34.
Distribution: Asia (Vietnam).
References: (tx) Schedl 1953b: 128, 1979c: 34.
- confusus** Browne 1950b: 644. Holotype ♀; Malaya: Selangor, Kepong; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Borneo).
Hosts: *Shorea leprosula*.
Notes: (3) Browne 1962c: 208 (described male).
References: (hb) Beaver & Browne 1978: 586; Browne 1961c: 185. (ds) Beaver & Browne 1978: 586; Browne 1961a: 308, 1961c: 185. (tx) Browne 1950b: 644, 1962c: 208; Schedl 1979c: 62.
- dryobalanopsis** Schedl 1942a: 184. Lectotype ♀; Malaya, Selangor, Kanching F. R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 84.
Distribution: Asia (Malaya).
Hosts: *Balanocarpus heinii*, *Dryobalanops aromatica*.
References: (ds) Browne 1961c: 184, 1981b: 598, 1985b: 291. (tx) Schedl 1942a: 184, 1979c: 84.
- eggersi** Schedl 1936h: 60. Lectotype ♀; Mindanao, Kolambugan; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 87.
Distribution: Philippine Islands (Mindanao).
References: (tx) Anderson, W. H. & Anderson 1971: 12; Schedl 1936h: 60, 1942a: 184, 1960i: 109, 1979c: 87.
- eggerstianus** Schedl 1960i: 110 (*Xyleborus*). Lectotype ♀; Mindanao, Kolambugan; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 87, automatic.
Notes: (1) This is an unneeded replacement name; original name restored under the Code of Nomenclature.
References: (ds) Schedl 1966b: 51. (tx) Nobuchi 1983: 302; Schedl 1960i: 109–110, 1979c: 87.
- gracilior** Browne 1984d: 101. Holotype ♀; New Guinea: Long Island L. A.; BMNH, London.
Distribution: New Guinea.
Hosts: *Araucaria cunninghamii*.
References: (tx) Browne 1984d: 101.
- major** Browne 1986c: 665. Holotype ♀; Borneo: Tanjong Mani (Sarawak) to Nagoya (Japan), imported; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Dipterocarpus* sp. log.
References: (tx) Browne 1986c: 665.
- naevus** Schedl 1937e: 551. Lectotype ♀; Malay Peninsula, Jengang F. R.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 163.
Distribution: Asia (Malaya), Indonesia (Borneo).
Hosts: *Shorea* spp.
References: (ds) Browne 1961c: 184; Schedl 1964g: 242. (tx) Browne 1972b: 24; Schedl 1937e: 551, 1979c: 163.
- nanus** Browne 1949b: 903. Holotype ♀; Malaya: Kelantan, Pulai Chondong; BMNH, London.
Distribution: Asia (Malaya).
Hosts: *Hopca ferrca*, *Shorea parviflora*, *S.* sp.
References: (tx) Browne 1949b: 903, 1955: 353.
- caculator** Browne 1955: 353 (*Xyleborus*). Holotype ♀; Malaya: Kelantan, Pulai Chondong; BMNH, London, automatic.
Notes: (1) This is an unneeded replacement name.
References: (hb) Beaver & Browne 1961c: 123–124. (ds) Beaver & Browne 1978: 605; Browne 1961c: 124, 1962c: 202. (tx) Browne 1955: 353.
- opacicaudulus** Schedl 1942a: 185. Lectotype ♀; Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 178.
Distribution: Asia (Malaya).
Hosts: *Shorea gysbertsiana*, *S. leprosula*, *S. macroptera*.
References: (hb) Beaver & Browne 1978: 586; Browne 1961c: 184. (ds) Beaver & Browne 1978:

- 586; Browne 1961c: 184. (**tx**) Schedl 1942a: 185, 1979c: 178.
- oxyurus** Schedl 1942a: 184. Lectotype ♀; Malaya, Pahang; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 182.
Distribution: Asia (Malaya).
References: (**ds**) Browne 1961c: 184. (**tx**) Browne 1950b: 644; Schedl 1937c: 551, 1942a: 184, 1950g: 894, 1979c: 182.
- quadriporus** Beaver 1990a: 281. Holotype ♀; Chiang Mai, Thailand; BMNH, London.
Figures: Beaver 1990a: 282 (outline of female).
Distribution: Asia (Thailand).
References: (**tx**) Beaver 1990a: 281.
- shoreae** Browne 1981b: 602. Holotype ♀; Philippines to Tagonoura (Japan), imported; BMNH, London.
Distribution: Philippine Islands.
Hosts: *Shorea* sp.
References: (**tx**) Browne 1981b: 602.
- stenographus** (Schedl) 1971c: 353 (*Xyleborus*). Holotype ♀; Sumatra, Pladjoe; Schedl Collection in NHMW, Wien.
Distribution: Indonesia (Sumatra).
References: (**tx**) Schedl 1971c: 353–384, 1979c: 237.
- subnaevus** Schedl 1937c: 552. Lectotype ♀; Borneo, Serawai, und Leb. Hara; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 242.
Distribution: Asia (Burma/ Kerala in India/ Thailand), Indonesia (Borneo, Sumatra), Philippine Islands.
Hosts: *Pentacme mavis*, *Shorea curtisii*, *S. platycarpa*, *S. spp.*
References: (**cn**) Mathur & Singh 1961a: 38. (**ds**) Beaver 1990a: 279; Beeson 1961: 286; Browne 1961c: 184, 1984c: 445; Mathur & Singh 1961a: 38; Nobuchi 1978a: 44; Ohno, Yoneyama, & Nakazawa 1987a: 89; Schedl 1961c: 70, 1966g: 33. (**tx**) Nobuchi 1983: 304; Schedl 1937c: 552, 1939c: 333, 1950f: 36, 1961c: 70, 1966g: 40, 1979c: 242; Wylie & Yule 1977.
- turbineus** (Sampson) 1923b: 288 (*Xyleborus*). Holotype ♀; Bengal: Raja Bhat Khawa; BMNH, London.
Distribution: Asia (Burma/ Bengal, Bihar in India/ Thailand/ Vietnam), Philippine Islands.
Hosts: *Pentacme suavis*, *Shorea robusta*.
References: (**cn**) Mathur & Singh 1961a: 45. (**cc**) Beeson 1923. (**hb**) Beeson 1923. (**ds**) Beaver & Browne 1975: 289; Beeson 1923, 1930: 262, 1961: 286; Kleine 1934a: 175; Mathur & Singh 1961a: 45; Schedl 1962b: 187, 1966b: 75, 1975c: 452. (**tx**) Beeson 1930: 262; Eggers 1927b: 407; Nobuchi 1983: 304; Sampson 1923b: 288; Schedl 1936h: 60, 1937b: 399, 1937c: 551, 1942a: 184, 1953b: 124.
- vestigator** (Schedl) 1973c: 93 (*Xyleborus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe Dist. [New Guinea]; CSIRO, Canberra.
Distribution: New Guinea.
Notes: (1) The holotype of *Platypus goilalae* Schedl 1975f: 387 is apparently this species (DEB).
References: (**tx**) Schedl 1973c: 93, 1979c: 266.

Genus *Webbia* Hopkins

- WEBBIA HOPKINS 1915c: 222. Type-species: *Webbia dipteroearpi* Hopkins, original designation.
- Xelyborus* Schedl 1939c: 349. Type-species: *Nomen nudum*. Synonymy: Browne 1963c: 57.
References: (**tx**) Browne 1961c: 189, 1963c: 57; Schedl 1939c: 349.
- Pseudowebbia* Browne 1961a: 308. Type-species: *Xyleborus trepanicauda* Eggers, original designation. Synonymy: Wood 1983a: 650.
References: (**tx**) Browne 1961a: 308, 1963c: 57; Schedl 1964k: 213; Wood, S. L. 1983a: 650.
- Prowebbia* Browne 1962c: 208. Type-species: *Prowebbia subuculae* Browne, original designation. Synonymy: Browne 1972b: 25.
References: (**tx**) Browne 1962c: 208, 1963c: 53–58, 1972b: 25; Schedl 1963j: 480, 1964h: 424, 1964k: 214.
- Keys: Browne 1962c: 210.
References: (**ay**) Nobuchi 1969a: 64. (**hb**) Browne 1961c: 185; Gardier 1934: 1–17; Wood, S. L. 1986a: 84. (**ds**) Schedl 1966b: 79; Wood, S. L. 1986a: 84. (**tx**) Browne 1958a: 487–497, 1960: 208, 1962c: 210, 1963c: 57, 1965a: 204, 1972b: 25; Hopkins 1915c: 222; Murayama 1960: 49; Schedl 1936h: 62, 1939c: 349; Wood, S. L. 1986a: 84.
- acutus** (Schedl) 1975f: 361 (*Xyleborus*). Holotype ♀; Upper Manki logging area, Bulolo, Morobe Dist. [New Guinea]; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (**tx**) Schedl 1975f: 361, 1979c: 11.
- armifer** (Schedl) 1942c: 185 (*Xyleborus*). Holotype ♀; Neu-Guinea; Schedl Collection in NHMW, Wien.
Distribution: New Guinea.
References: (**tx**) Schedl 1942c: 185, 1955b: 306, 1979c: 26.
- spinachius* Schedl 1955b: 306 (*Xyleborus*). Holotype ♀; Deutsch-Neu-Guinea; Schedl Collection in NHMW, Wien.
Notes: (1) A probable synonym, needs confirmation.
References: (**tx**) Schedl 1955b: 281, 306, 1979c: 234.
- bakoensis** Browne 1961a: 310. Holotype ♀; Sarawak: Bako National Park; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Shorea* sp., *Dipterocarpus borneensis*, *Vatica* sp.

References: (tx) Browne 1961a: 310.

bicornis (Schedl) 1939e: 349 (*Xelyborus*). Lectotype ♀; Malaya: Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 39.

Distribution: Asia (Malaya).

Hosts: *Shorea bracteolata*.

References: (hb) Browne 1961c: 189. (tx) Browne 1963c: 57; Eggers 1927b; Schedl 1939e: 349–350, 1942a: 193, 1979c: 39.

biformis Browne 1958a: 496. Holotype ♀; Malaya: Selangor, Kepong; BMNH, London.

Distribution: Asia (Malaya/ Sri Lanka/ Thailand), Indonesia (Borneo), Philippine Islands.

Hosts: *Dipterocarpus obtusifolius*, *Shorea leprosula*.

Notes: (3) Browne 1958a: 497 (named an aberration as var. *minor*).

References: (hb) Beaver & Browne 1975: 296; Browne 1961c: 188. (ds) Beaver & Browne 1975: 296; Browne 1958a: 496, 1961c: 188.

bituberculatus Browne 1977c: 369. Holotype ♀; Malaysia: Penang, Telok Bahang; BMNH, London.

Figures: Browne 1977c: 370.

Distribution: Asia (Malaya).

Hosts: *Hopea ferrea*, *Shorea curtisii*, *S. maxwelliana*. References: (hb) Beaver & Browne 1978: 600. (ds) Beaver & Browne 1978: 600. (tx) Browne 1977c: 369–370.

ceylonae Schedl 1959a: 493. Syntypes ♀; Ceylon: Millawitiya Estate; Schedl Collection in NHMW, Wien.

Distribution: Asia (Sri Lanka).

Hosts: *Dipterocarpus zeylanicus*.

Notes: (1) Schedl 1979c: 55 (citation of holotype invalid).

References: (ds) Schedl 1959a: 493. (tx) Schedl 1959a: 493, 1979c: 55.

circumcisis Schedl 1975f: 373. Holotype ♀; Mt. Riu, Sudest Isl., New Guinea, 250–350 m; AMNH, New York.

Distribution: New Guinea.

References: (ds) Schedl 1965g: 24, 1975f: 373.

cornutus Schedl 1942a: 183. Lectotype ♀; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 65.

Distribution: Asia (Malaya/ Thailand), Indonesia (Borneo).

Hosts: *Dipterocarpus obtusifolius*, *Hopea beccariana*, *H. ferrea*, *H. odorata*, *Shorea macroptera*, *S. leprosula*.

Notes: (3) Browne 1955: 349 (described male).

References: (cn) Yunus & Hua 1980: 229. (hb) Beaver & Browne 1975: 297, 1978: 601; Browne 1961c: 188. (ds) Beaver & Browne 1975: 297, 1978: 601; Browne 1961c: 188, 1962c: 202, 1980c:

483; Yunus & Hua 1980: 229. (tx) Browne 1955: 349; Schedl 1942a: 183, 1979c: 65.

costulatus Schedl 1953c: 299. Lectotype ♀; Malaya, Selangor Kepong; Schedl Collection in NHMW, Wien.

Distribution: Asia (Malaya), Indonesia (Borneo).

Hosts: *Palaquium stellatum*.

Notes: (3) Browne 1958a: 492 (described male).

References: (hb) Browne 1961c: 185. (ds) Browne 1961c: 185–186, 1962c: 202. (tx) Browne 1958a: 492, 1962c: 202; Schedl 1953c: 299.

cylindricus Schedl 1942a: 182. Lectotype ♀; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 74.

Distribution: Asia (Malaya), Indonesia (Borneo).

Hosts: *Palaquium* sp., *Shorea leprosula*, *S. macroptera*.

References: (hb) Browne 1961c: 187. (ds) Browne 1961a: 311, 1961c: 187. (tx) Schedl 1942a: 182, 1952k: 162, 1979c: 74.

dasyurus Browne 1981a: 133. Holotype ♀; Baculin (Philippine) to Tokyo (Japan), imported; BMNH, London.

Distribution: Philippine Islands.

Hosts: *Shorea* sp.

References: (tx) Browne 1981a: 133; Nobuchi 1983: 304.

dentatus Eggers 1927c: 108. Holotype ♀; Philippines: Negros, Cuernos Mts.; Eggers Collection, in NHMW, Wien.

Figures: Nobuchi 1978a: pl. 1.

Distribution: Philippine Islands (Negros).

References: (ds) Schedl 1966b: 79, 1966g: 30. (tx) Eggers 1927c: 108; Nobuchi 1978a: pl. 1, 1983: 304; Schedl 1936h: 63, 1979c: 77.

denticulatus Browne 1983a: 561. Holotype ♀; Terminaban (West Irian) [New Guinea] to Nagoya (Japan), imported; BMNH, London.

Distribution: New Guinea.

References: (ds) Browne 1985b: 290. (tx) Browne 1983a: 561.

dipterocarp Hopkins 1915c: 223. Holotype ♀; near Pagbilao, Philippine Islands; USNM, Washington.

Distribution: Asia (Malaya), Indonesia (Borneo), Philippine Islands (Quezon).

Hosts: *Dipterocarpus grandiflorus*, *D. baudi*, *Hopea* spp., *Shorea* spp.

References: (ds) Kleine 1934a: 167; Sampson 1919: 114; Schedl 1966b: 79. (tx) Hopkins 1915c: 223, pl. 9, fig. 5, pl. 10, fig. 5; Nobuchi 1983: 304; Sampson 1919: 114; Schedl 1936h: 63.

octodecimsinatus Sampson 1921: 34. Holotype ♀; Penang; BMNH, London. Synonymy: Wood 1983a: 650.

Notes: (1) This name was originally given as *18-spinatus*, a name no longer acceptable

- under the Code. (3) Browne 1958b: 493 (described male).
References: **(cn)** Browne 1949e. **(cc)** Browne 1958b: 493. **(hb)** Beaver & Browne 1978: 601; Browne 1935a, 1941, 1958b: 493, 1961c: 186–187. **(ds)** Beaver & Browne 1978: 601; Beeson 1961: 301; Browne 1935a, 1950b: 380; Ohno, Yoneyama, & Nakazawa 1987a: 89; Sampson 1921: 34; Schedl 1936d: 2. **(tx)** Browne 1958b: 493; Nobuchi 1983: 304; Sampson 1921: 34; Schedl 1936d: 2, 1936h: 62–63, 1942a: 170; Wood, S. L. 1983a: 650.
- diversicauda** Browne 1972b: 26. Holotype ♀; Malaya: Sungei Buloh; BMNH, London.
Distribution: Asia (Malaya).
References: **(tx)** Browne 1972b: 26.
- duodecimspinatus** Schedl 1942a: 182. Lectotype ♀; Malaya, Selangor, Ulu Gombak; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 35.
Distribution: Asia (Malaya).
Hosts: *Hopea beccariana*, *H. ferrea*, *Shorea curtisii*, *S. maxwelliana*.
Notes: (1) This name was originally spelled 12-spinatus, a spelling no longer acceptable under the Code.
References: **(hb)** Beaver & Browne 1978: 601. **(ds)** Beaver & Browne 1978: 601; Browne 1961c: 187. **(tx)** Schedl 1942a: 182, 1979c: 35.
- gracilis** Browne 1972b: 27. Holotype ♀; Malaya: Sungei Buloh; BMNH, London.
Figures: Browne 1972b: 22.
Distribution: Asia (Malaya).
References: **(tx)** Browne 1972b: 22, 27.
- hatanakai** Browne 1986a: 99. Holotype ♀; Philippine Islands: Port Barton (Palawan) to Nagoya (Japan), imported; BMNH, London.
Distribution: Philippine Islands (Palawan).
Hosts: *Dipterocarpus* sp.
References: **(ds)** Ohno, Yoneyama, & Nakazawa 1987a: 89. **(tx)** Browne 1986a: 99.
- kuchingensis** (Browne) 1955: 348 (*Xyleborus*). Holotype ♀; Sarawak: Kuching; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
References: **(tx)** Browne 1955: 348, 1963c: 57.
- micrographus** (Schedl) 1942a: 185 (*Cryptographus*). Lectotype ♀; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 152.
Distribution: Asia (Malaya).
Hosts: *Shorea macroptera*.
References: **(hb)** Browne 1961c: 184. **(tx)** Browne 1949b: 903; Schedl 1942a: 185, 1979c: 152.
- decorus** Schedl 1960i: 110 (*Xyleborus*). Lectotype ♀; Malaya, Selangor, Kepong; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 152, automatic.
- Notes: (1) This is an unneeded replacement name for *micrographus*.
References: **(tx)** Schedl 1960i: 110, 1979c: 152.
- mucronatus** Eggers 1927c: 107. Holotype ♀; Philippines: Mindanao, Provinz Lanao, Kolambagan; USNM, Washington.
Distribution: Philippine Islands (Mindanao).
References: **(ds)** Schedl 1966b: 79. **(tx)** Anderson, W. H. & Anderson 1971: 21; Eggers 1927c: 107; Schedl 1936h: 62–63.
- multidentatus** Browne 1984c: 453. Holotype ♀; Kimanis (Sabah) to Nagoya (Japan), imported; BMNH, London.
Distribution: Asia (apparently Malaya).
Hosts: *Shorea* sp.
References: **(tx)** Browne 1984c: 453.
- obtusipennis** Schedl 1966g: 38. Holotype ♀; Diapitan, P.I. to Tokyo (Japan), imported; PPST, Tokyo.
Figures: Nobuchi 1978a: pl. 1.
Distribution: Philippine Islands.
Hosts: Lauan log.
References: **(ds)** Nobuchi 1978a: 3. **(tx)** Nobuchi 1978a: pl. 1, 1983: 304; Schedl 1966g: 38.
- obtusipinosus** Schedl 1939e: 348. Lectotype ♀; Malaya, Selangor: Sungei Buloh For. Res.; Schedl Collection in NHMW, Wien, designated by Schedl 1979c: 196.
Distribution: Asia (India, Malaya), Indonesia (Borneo).
Hosts: *Shorea parvifolia*.
Notes: (1) Originally named as a variety of *platypoides*, Browne 1958a: 494 elevated it to species rank. (3) Browne 1958a: 494 (described male).
References: **(cn)** Mathur & Singh 1961a: 41. **(hb)** Browne 1961c: 188. **(ds)** Beeson 1961: 301; Browne 1961a: 311, 1961c: 188. **(tx)** Browne 1958a: 494; Schedl 1939e: 348, 1979c: 196.
- orbicularis** Schedl 1970b: 361. Holotype ♀; Sarawak, Sibuti to Tokyo (Japan), imported; PPST, Tokyo.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: Seraya.
References: **(ds)** Browne 1984c: 448; Nobuchi 1978a: 5. **(tx)** Schedl 1970b: 361–362, 1979c: 180.
- pabo** Sampson 1922b: 150. Holotype ♀; Kheri Lakhimpur, U.P., India; BMNH, London.
Figures: Nobuchi 1978a: pl. 1.
Distribution: Asia (Xizang [Tibet], Yunnan in China/ Madhya Pradesh, Uttar Pradesh in India/ Thailand), Indonesia (Sarawak in Borneo).
Hosts: *Anisoptera curtisii*, *Shorea robusta*.
References: **(cn)** Mathur & Singh 1961a: 45; Wylie & Shanahan 1975. **(cc)** Beeson 1922c: 500, 1923. **(hb)** Beeson 1922c: 500, 1923; Wylie & Shanahan 1975. **(ds)** Beaver & Browne 1975: 297; Beeson 1922c: 500, 1923, 1961: 301; Browne 1972b: 20, 1980c: 483; Kleine 1934a: 167;

- Mathur & Singh 1961a: 45. (tx) Eggers 1927c: 105; Nobuchi 1978a:pl. 1; Sampson 1922b: 150; Schedl 1936h: 62.
- philippinensis** Schedl 1971c: 374. Holotype ♀; Philippines: Luzon, Balaban; Schedl Collection in NHMW, Wien.
Distribution: Philippine Islands (Luzon).
References: (tx) Nobuchi 1983: 304; Schedl 1971c: 374–375, 1979c: 192.
- picicauda** Schedl 1979j: 129. Holotype ♀; Papua New Guinea; Schedl Collection in NHMW, Wien [not seen].
Distribution: New Guinea.
References: (tx) Schedl 1979j: 129.
- piscecauda** Browne 1960: 210. Holotype ♀; Malaya: Kelantan, Pulai Chondong; BMNH, London.
Distribution: Asia (Malaya).
Hosts: *Pasania* sp., *Quercus* sp.
References: (ds) Browne 1961c: 188. (tx) Browne 1960: 210, 1972b: 26.
- platypoides** Eggers 1927c: 105. Lectotype ♀; Philippines: Kolambugan, Prov. Zamboanga, Port Banga; USNM, Washington, designated by Anderson & Anderson 1971: 26.
Figures: Nobuchi 1978a:pl. 1.
Distribution: Asia (Malaya), Indonesia (Borneo), Philippine Islands (Mindanao).
Hosts: *Shorea* spp.
References: (cn) Ishikura 1966. (hb) Browne 1941, 1961c: 188. (ds) Browne 1961c: 188; Ishikura 1966; Nobuchi 1978a: 4; Ohno, Yoneyama, & Nakazawa 1987a: 89; Schedl 1966b: 79, 1966g: 31, 1975a: 454. (tx) Anderson, W. H. & Anderson 1971: 26; Eggers 1927c: 105; Nobuchi 1978a:pl. 1, 1983: 304; Schedl 1936h: 62–63, 1939c: 348–349, 1951i: 50, 1959a: 493, 1975a: 459, 1979c: 196.
- quadricinctus** Schedl 1972h: 62. Holotype ♀; Kulo logging area, Wau, M. Dist., New Guinea; CSIRO, Canberra.
Distribution: New Guinea.
Hosts: *Castanopsis accuminatissima*.
References: (tx) Schedl 1972h: 62, 1979c: 207.
- quattuordecimspinus** Sampson 1921: 34. Holotype ♂ ♀; Mt. Matang, Borneo; BMNH, London.
Distribution: Asia (Malaya), Indonesia (Borneo), Philippine Islands.
Hosts: *Dipterocarpus borneensis*, *Dryobalanops aromatica*, *Hopea* sp., *Shorea balanocarpoides*, *S.* sp., *Vatica* sp.
Notes: (1) This name was originally given as 14-*spinatus*, a spelling not now acceptable under the Code.
References: (hb) Browne 1961c: 187. (ds) Browne 1961a: 310, 1961c: 187, 1981a: 125. (tx) Browne 1961a: 310, 1961c: 187; Sampson 1921: 34.
- quattuordecimspinus** Schedl 1942a: 182. Syn- types ♀; Malaya, Mersing Reserve, Johre; BMNH, London and Schedl Collection in NHMW, Wien, preoccupied by Sampson 1921. Synonymy: Wood 1989: 176.
Notes: (1) The original spelling was 14-*spinatus*. (3) Browne 1958a: 493 (described male).
References: (hb) Browne 1961c: 187. (ds) Browne 1961a: 310, 1961c: 187, 1981a: 185; Sampson 1921: 34. (tx) Browne 1958a: 493, 1961a: 310; Nobuchi 1983: 304; Nunberg 1956: 209; Schedl 1942a: 182, 1952c: 61; Wood, S. L. 1989: 176.
- quattuordecimcostatus** Schedl 1952c: 61. Syn- types ♀; Malaya, Mersing Reserve, Johre; BMNH, London, and Schedl Collection in NHMW, Wien. Synonymy: Browne 1961a: 310, 1961c: 187.
Notes: (1) This name was originally given as 14-*costatus*. It is an unneeded replacement name. (3) Browne 1958a: 493 (described male).
References: (tx) Browne 1958a: 493, 1961a: 310, 1961c: 187; Schedl 1952c: 61.
- sampsoni** Nunberg 1956: 209. Syntypes ♀; Malaya, Mersing Reserve, Johre; BMNH, London and Schedl Collection in NHMW, Wien.
Notes: (1) This is an unneeded replacement name of 14-*spinatus* Schedl.
References: (tx) Browne 1961a: 310; Nunberg 1956: 209, 1959c: 168.
- sarawakensis** Schedl 1964g: 245. Holotype ♀; Sarawak, Merurong Plateau, 2350 feet; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Palaquium* sp.
References: (ds) Browne 1965a: 189, 1981a: 126. (tx) Schedl 1964g: 245, 1979c: 219.
- seriata** (Browne) 1963c: 56 (*Pseudowebbia*). Holotype ♀; Sarawak, Kuching; BMNH, London.
Distribution: Indonesia (Sarawak in Borneo).
Hosts: *Vatica* sp.
References: (ds) Browne 1965a: 189. (tx) Browne 1963c: 57; Schedl 1964k: 213.
- brownei** Schedl 1964k: 214 (*Xyleborus*). Holotype ♀; Sarawak, Kuching; BMNH, London.
Notes: (1) This is an unneeded replacement name for *seriata*.
References: (tx) Schedl 1964k: 214, 1965f: 13, 1979c: 48.
- similis** (Eggers) 1923a: 213 (*Xyleboricus*). Holotype ♀; Deutsch Neu Guinea (Hunsteinspitze, 1350 feet); MNB, Berlin.
Distribution: New Guinea.
Notes: (1) Browne 1963c: 57 (to *Webbia*).
References: (tx) Browne 1963c: 57; Eggers 1923a: 213; Schedl 1936h: 64, 1958k: 145, 1973q: 259.
- obscurus** Schedl 1972q: 259 (*Xyleborus*). Holo-

type ♀; Deutsch Neu Guinea (Hunsteinspitze, 1350 feet); MNB, Berlin.

Notes: (1) This is an unneeded replacement name for *similis*.

References: (tx) Schedl 1972q: 259.

simplex (Browne) 1949b: 902 (*Cryptoxyleborus*). Holotype ♀; Malaya: Kelantan, Pulau Chondong; BMNH, London.

Distribution: Asia (Malaya), Indonesia (Borneo).

Hosts: *Dryobalanops oblongifolia*, *Shorea* sp.

References: (hb) Browne 1961c: 184. (ds) Schedl 1964g: 242. (tx) Browne 1949b: 902, 1960: 202; Schedl 1964g: 242.

spinipennis Schedl 1970b: 360. Holotype ♀; Borneo, Kennedy Bay to Nagoya (Japan), imported; PPST, Tokyo.

Figures: Nobuchi 1978a:pl. 1.

Distribution: Indonesia (Borneo).

References: (ds) Nobuchi 1978a: 5. (tx) Nobuchi 1978a:pl. 1; Schedl 1970b: 360–361, 1979c: 235.

squamatilis (Schedl) 1955b: 307 (*Xyleborus*). Holotype ♀; Deutsch-Neu-Guinea; Schedl Collection in NHMW, Wien.

Distribution: New Guinea.

References: (tx) Schedl 1955b: 281, 307, 1979c: 235.

subuculae (Browne) 1962c: 209 (*Prowebbia*). Holotype ♀; Sarawak: Bungo Hills, 4000 ft.; BMNH, London.

Distribution: Asia (Malaya), Indonesia (Sarawak in Borneo).

References: (tx) Browne 1962c: 209, 1972b: 25; Schedl 1964k: 214, 1964h: 424.

suturalis Browne 1955: 349. Holotype ♀; Malay Peninsula: Kedah, Gunong Jerai; BMNH, London.

Figures: Browne 1972b: 22.

Distribution: Asia (Malaya), Indonesia (Borneo).

Hosts: *Dipterocarpus borneensis*, *Hopea* sp., *Shorea maxwelliana*.

References: (hb) Beaver & Browne 1978: 602; Browne 1961c: 189. (ds) Beaver & Browne 1978:

602; Browne 1961a: 311. (tx) Browne 1955: 349, 1963c: 57, 1972b: 22, 27.

trepanicauda (Eggers) 1923a: 170 (*Xyleborus*). Syntypes ♀; Tambang Salida (W. Sumatra), Borneo: Sarawak; RNH, Leiden and MCC, Genova. Distribution: Asia (Vietnam), Indonesia (Sarawak in Borneo, Sumatra).

Hosts: *Vatica* sp.

Notes: (3) Browne 1961a: 309 (cited in *Pseudo-webbia*).

References: (ds) Browne 1968a: 133. (tx) Browne 1961a: 309, 1963c: 56, 1968a: 133; Eggers 1923a: 170–171; Schedl 1942a: 197, 1955b: 306–307.

trigintispinatus Sampson 1922: 149. Holotype ♀; Burma: Kaing R., Pyimana; BMNH, London.

Figures: Nobuchi 1978a:pl. 1.

Distribution: Asia (Burma/ Assam in India/ Malaya/ Vietnam), Indonesia (Borneo).

Hosts: *Dipterocarpus* spp., *Hopea odorata*, *Mallotus albus*.

Notes: (1) Originally named *30-spinatus*, a spelling not now accepted by the Code. (3) Browne 1963c: 57 (described male).

References: (ec) Beeson 1922c: 500. (hb) Beeson 1922c: 500. (ds) Beeson 1922c: 500, 1961: 301; Browne 1968a: 133; Kleine 1934a: 167; Olmo, Yoneyama, & Nakazawa 1982b: 9, 1987a: 89. (tx) Browne 1963c: 57, 1968a: 132; Eggers 1925: 160; Nobuchi 1978a:pl. 1; Sampson 1922b: 149.

26-spinatus Sampson 1922b: 149. Holotype ♀; Burma: Kaing R., Pyinmana; BMNH, London. Synonymy: Browne 1963c: 57.

References: (ec) Beeson 1922c: 500. (hb) Beeson 1922c: 500. (ds) Beeson 1922c: 500; Kleine 1934a: 167. (tx) Browne 1963c: 57; Eggers 1925: 160; Sampson 1922b: 149; Schedl 1936c: 63.

turbinatus Maiti & Saha 1986: 104. Holotype ♀; North Andaman Island; FRI, Dehra Dun.

Figures: Maiti & Saha 1986: 105.

Distribution: Asia (Andaman Islands in India).

Hosts: *Dipterocarpus turbinatus*, *Sapium eugeniaefolium*.

References: (tx) Maiti & Saha 1986: 104.